



JUNE

1942

# On the Job

## FOR THE DURATION



**W**ITH the delivery of new Cletrac Crawler Tractors now curtailed by government order, Cletrac is glad to have so many of its tractors in the hands of capable farmers the country over. Maintained in top working condition, these Cletracs will deliver mighty satisfactory performance, to which Malcolm Atherton, a satisfied Cletrac owner, can testify. 20 years ago Mr. Atherton bought a Cletrac. Today he owns a new Cletrac Model HG, but he still keeps his older Cletrac—and “finds lots of use for it”—*after a generation of service.*

So we urge every Cletrac owner to keep his Cletrac in top-notch condition. With proper care and maintenance, the Cletrac you now own will perform as effectively as the day you bought it. Its use will save many man hours of labor—will produce larger crops at lower cost—and help you contribute your share in the raising of food so essential to Victory.



### CLETRAC CRAWLER TRACTORS

★ THE CLEVELAND TRACTOR CO. • CLEVELAND, OHIO ★

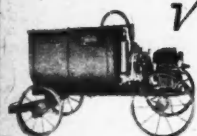
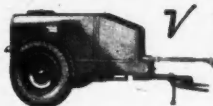


## Check this list for "BEAN" Helps to **MORE PROFITS**



✓  
BEAN 'Royal' Armored Sprayer, most efficient power sprayer ever built. All sizes.

BEAN 'Royal' Tractor Power Sprayer... 2-speed transmission if desired. All sizes.



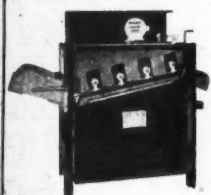
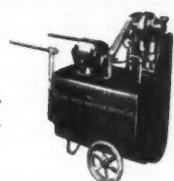
✓  
BEAN 'Little Giant' Duplex Sprayer. Six gallons a min. at 350 lbs. Two-cyl. pump.

BEAN Orchard Duster. Mixes its own dust... Most efficient duster made. One compact gear unit.



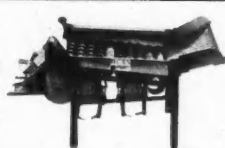
✓  
BEAN 'All-Purpose' Sprayer. For row crops and orchard work. Engine-driven. Low cost.

✓  
BEAN Greenhouse Sprayer. Light, compact, economical. Easy to handle.



✓  
BEAN 2-Way Fruit Cleaner. A dry cleaner which leaves fruit clean and bright. ... 3 sizes

✓  
BEAN Rubber-Spool Grader for potatoes & onions. Also cleans. Small, light, compact.



CUTLER Weight-type Grader ... for apples, peaches, pears. Also, Cushman Replacement Engines.

**JOHN BEAN MFG. CO.**  
DIVISION FOOD MACHINERY CORPORATION  
15 Hosmer Street, Lansing, Michigan  
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Please send information on—

...BEAN Armored Sprayers    ...BEAN All-Purposes  
...BEAN Tractor Sprayers    ...BEAN Greenhouse Sprayer  
...BEAN Little Giant Duplex    ...BEAN 2-Way Grader  
...BEAN Orchard Duster    ...BEAN Rubber-Sp. Grader  
...CUTLER Fruit Grader    ...CUSHMAN Engines

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# UNCLE SAM NEEDS **MORE FRUIT**



## Protect your 1942 yields with the **EXTRA VALUES IN DU PONT SPRAY PRODUCTS**

UNCLE SAM is asking for bigger yields for war time food supplies — help is scarce, and some spray materials, especially arsenicals, are already falling short of fulfilling increased needs.

There are two things you can do to meet these problems: (1) Use selective spraying, in accordance with the recommendations of your state experimental station. (2) Use sprays that are easier and quicker to apply ... that go farther and give more effective protection.

In this program, you need the *added values* of chemicals that are uniformly finely divided, instantly wettable, film forming, penetrating and sticking, like Du Pont SULFORON\* Wettable Sulfur, Flotation Sulfur, NuREXFORM\* and GRASSELLI\* Lead Arsenate.

Du Pont PARMONE\* will help save your apples and pears from pre-harvest drop.

You can count on the *added values* in Du Pont Spraying and Dusting Chemicals because they have been developed by years of laboratory and field research and manufactured under rigid standards of quality control.

Check the list of Du Pont Spraying and Dusting Chemicals below. And be sure to see your dealer now. Planning in advance will help you use available spray materials best — for your part in the victory program!

E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, Wilmington, Delaware.

\*Trade Mark



### INSECTICIDES

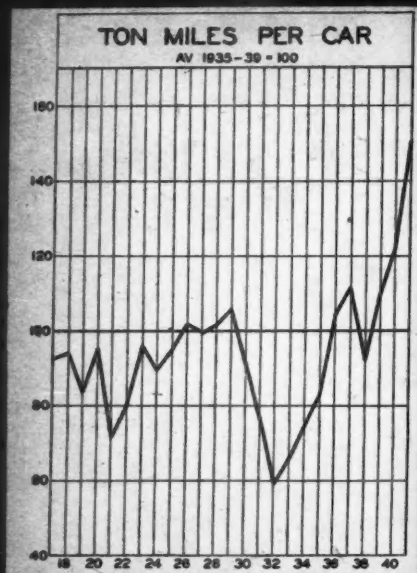
NuREXFORM Lead Arsenate  
GRASSELLI Lead Arsenate  
SULFORON Wettable Sulfur  
DUTOX Fluorine Insecticide  
LORO Contact Insecticide

Lime Sulfur  
Calcium Arsenate  
Spray Oils  
Copper Sulfate  
Sulfur

Paris Green  
Copper A Compound  
Flotation Sulfur Paste  
Bordeaux Mixture  
BLACK LEAF "40"

### FUNGICIDES

BLACK LEAF "155"  
FLUXIT Sprayer  
PARAPONT Paradichlorobenzene  
Zinc Sulfate Flake  
PARMONE Hormone Spray  
Cryolite precipitated



## "MY COUNTRY 'TIS OF THEE"

IN the diagram above the irregular heavy line shows for the 25 years from 1917 through 1941 the changes in railroad freight ton-miles per freight car in service. Many cars were scrapped during the long depression, and in the recovery in recent years only a small part of the loss has been regained. In 1941 about 60 percent more freight service was obtained from each car in use than was the case in 1917 and 1918 when transportation was one of the chief bottlenecks in our World War effort. Substantial progress has been accomplished since 1929 and 1937, two former peak years of traffic.

Probably no statistical series better illustrates the record being made by the railroad industry than do the figures of ton-miles of freight hauled per freight car. These figures show the combination of the typical load in each car and the average length of haul. When the industry is operating at capacity they also reflect, to some degree at least, the element of speed of movement since, when all of the cars are being used, the number of ton-miles is greater when train speeds are increased. Higher average speed permits more loads per car.

**B**URLAP bags, once plentiful about the farm, are now in about the same position as automobile tires, says Dr. J. O. Schaub, director of the North Carolina State College Extension Service. War in the Pacific has cut off normal supplies of the material used in making these bags, causing the government to announce a bag conservation program. Secretary of Agriculture Wickard has sent out an appeal to all agricultural agencies, asking them to encourage farmers to conserve the bags they receive supplies in and hasten them back into trade channels.

Cover photograph courtesy the Clay Equipment Corporation, Cedar Falls, Iowa.

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## KEEP 'EM ROLLING

**I**F the government's plan, "Food For Victory" is to succeed, the recent order issued by the Office of Defense Transportation will need to be modified. The order requires growers to haul full loads to and from market in their trucks. Hauling a full load to market is simple but getting a full load for the return trip is next to impossible. This order further states that if full loads are not obtained both ways, the truck shall remain idle. Remain idle while a crop rots. The railroads, already doing a highly commendable job in hauling defense materials and a good part of the nation's food tonnage, cannot with safety accept this added burden. The Allied Nations, the soldiers in the field, the people at home, must be fed. The trucks which growers must of necessity use to fully accomplish this purpose should not be forced to remain idle because of a "red tape" rule. The trucks used for transporting food are just as important, in their way, as the "jeep" or the tank. Growers can cooperate with their neighbors for combination hauling to market, they can take full loads to town, and they can and must observe the ordinary precautions against excessive tire and motor wear, but they must also be free to get their produce to terminal points without becoming entangled in restrictive regulations. Every grower should write—wire or call his representative in Congress and demand that this recent order No. 5 be modified.

## SWEET NEWS FOR HOME CANNERS

**F**RUIT growers who have been lying awake nights worrying about what sugar rationing would do to their businesses will be relieved to learn that the sugar rationing restrictions have been greatly relaxed. The individual home canner will under the present regulations be allowed to purchase nine pounds of sugar per person in the family unit and one extra pound per person for the packing of preserves, jams, jellies, and fruit butters. Thus a family of four will be able to purchase forty pounds of sugar for home canning, jams, jellies and fruit butters. And to make the picture even sweeter it will be possible to obtain more than the allotted nine pounds if the local rationing board feels that a more ambitious home canning policy is necessary.

The United States Department of Agriculture has shown that one pound of sugar will adequately can four quarts of finished canned fruit.

## • MARY LEE ADAMS •

**M**ANY of our women readers will recall the devoted interest of Mary Lee Adams, former Household Editor of the AMERICAN FRUIT GROWER, in the fruit farm home and her many kindly and thoughtful suggestions.

On April 28, 1942, she laid aside her pen and finished the final chapters of an active, unselfish and useful life. She left the world when her orchard in Greenwood, Virginia, was in full bloom and symbolic of the spirit of her life. She was an inspiration to others and considerate and generous in every thought and deed.

Mary Lee Adams was the wife of the late Samuel Adams, founder of AMERICAN FRUIT GROWER, and a sister of Robert B. Campbell of Richmond, Virginia, former publisher.



## IN THE NEWS

### DR. A. J. HEINICKE

Dr. Arthur J. Heinicke, head of the pomology department at Cornell University, will succeed Dr. P. J. Parrott as director of the State Agricultural Experiment Station at Geneva, Sept. 1.



Dr. A. J. Heinicke

The new director specialized in horticulture at the University of Missouri where he received two degrees, and in 1917 his Ph. D. at Cornell. When only 28, he was made head of the University of Cornell pomology department, one of the youngest men ever to receive such an appointment.

Dr. Parrott, who has reached the retirement age, has earned a lasting place in the field of agriculture of New York State and will be missed by his many friends. He plans to live in Geneva, and will be available for counsel and guidance.

### DR. FRANK P. CULLINAN

Announcement has been made of the appointment of Dr. Frank P. Cullinan as Assistant Chief of the Bureau of Plant Industry, U.S.D.A.

Dr. Cullinan was born and reared on a farm near Geneva, N. Y. After his graduation from Cornell University in 1917, and until 1931, when he received his doctor's degree from the University of Chicago, he devoted his time in teaching and research at Purdue University and from



Dr. Frank P. Cullinan

1922-1931 was in charge of pomological research at the Purdue Extension Station.

Since the fall of 1931, Dr. Cullinan has been in charge of all research on peaches and other stone fruits in the Bureau of Plant Industry and since last July, in charge of all work with deciduous fruits.

### PORTER R. TAYLOR

Porter R. Taylor, who resigned as assistant to the Administrator of the Agricultural Marketing Administration, has been appointed general manager of the Cooperative Fruit and Vegetable Association with offices in 830 Munsey Bldg., Washington, D.C.



Porter R. Taylor

For the past nine years with the United States Department of Agriculture, Mr. Taylor exercised a strong hand and powerful influence in the purchasing and marketing agreement programs of the Department. He has given his time unrelentingly to the fruit industry and is looked upon as a man who has a thorough knowledge and understanding of the problems of marketing and distribution as they now confront the producers of perishable crops, and in his new capacity, his talents and his energetic spirit will have full play.

JUNE, 1942

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# GET THE DROP ON



# RED MITE

WITH



Write for this folder on how to use DN-111 for summer red mite control.

At the first sign of red mites it's time to spray with DN-111\*. Don't wait until foliage appears bronzed. Act at once. Get the drop on the mites to prevent a build-up during summer months.

DN-111 is a new summer red mite control produced by Dow. Like Dow DN-Dormant Sprays, it is highly effective in doing its job. Whether or not you use dormant oil sprays you'll need DN-111 to protect foliage and stop red mite injury this summer. Follow the Dow Trade-Mark for fruit of desirable size, color and quality.

**THE DOW CHEMICAL COMPANY**  
MIDLAND • MICHIGAN  
NEW YORK • ST. LOUIS • CHICAGO



\*Trade-Mark

HOW TO  
CONTROL

# RED MITE



**THERE IS A DOW INSECTICIDE FOR EVERY SPECIFIC NEED**  
AMERICAN FRUIT GROWER

PAGE 5

# HERE'S SOLUTION TO LABOR SHORTAGE AT PICKING TIME

# USE HARVEST

By Jonas Howard

**W**ITH an early bloom reported for a large number of apple producing sections, many growers foresee a heavy drop at harvest time. The early bloom may cause an early harvest during hot weather which inevitably causes heavy dropping. Tendency for the apples to fall, coupled with the shortage of orchard labor, could create many a difficult picking situation in orchards this season.

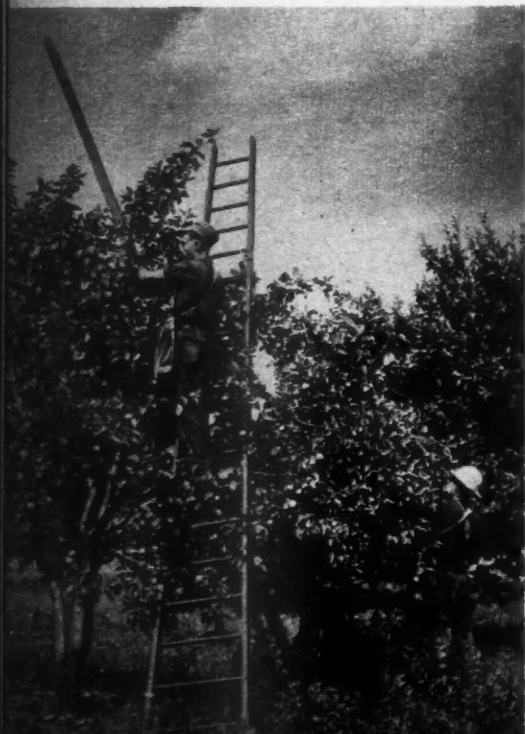
For the fruit grower hard pressed by a shortage of orchard workers, and by apples which refuse to hold on the trees, harvest sprays will give substantial help at picking time. Performing wonders of which growers a few years ago never dreamed, these sprays have proved themselves capable of holding fruit on the trees for periods from a week to several months. In preventing sound fruit from dropping and avoiding wind-falls, harvest sprays have saved growers thousands of dollars over past seasons. With the success of two years behind them, harvest sprays are now ready to tackle what is perhaps the largest problem facing the wartime fruit grower.

Large gangs of experienced pickers are required in the orchard at harvest time in order to get the fruit from the trees, especially if speed is essential during hot weather when

The picking situation will present a problem in most orchards this fall.

Harvest sprays hold apples on the tree until the picker can get around to it.

Growers who cannot be sure of obtaining gangs of experienced pickers, as illustrated below, should plan now to use harvest sprays for controlled picking.





# EST SPRAYS FOR "CONTROLLED" PICKING



apples drop quickly and without warning. Picking crews varying from small groups of ten per orchard to several hundred or more have been necessary to gather in the nation's crop of fruit. Mass labor is needed to do the job and mass labor will not be available except in the most fortunate of circumstances.

What is the answer? The magic of harvest sprays gives the grower a possible method over which he has direct control. Most other efforts to combat the twin problems of labor shortage and dropping must concern themselves with the recruiting of large amounts of labor from schools and from older people by cooperative effort.

Harvest sprays prevent drop and allow the fruit to be picked over a longer period of time, thus relieving the critical need for labor during a few rush harvest weeks. Picking crews will be available this fall but not in sufficient quantities to serve all growers at the proper picking time. In effect, growers will have to wait their turn and it will be the hormone magic which will keep the fruit on the trees despite hot weather until pickers are available.

Besides giving the grower greater leeway in obtaining his labor, harvest sprays permit the use of a smaller number of pickers since more time can be spent in picking the fruit. With a longer picking season, fewer hands will be needed to pick the 1942 crop.

Hormones have been used most widely on apples. However, there is no reason why the same labor-saving and drop-preventing benefits cannot be obtained with other fruits. Cherries have been reported to respond to spray treatments allowing a longer picking season before the stems dry out causing the fruit to shrivel.

Pears sprayed with hormones hold onto the trees and good results have been obtained especially in the pear growing regions of the Pacific Northwest. According to experiments in Florida, citrus fruits respond well to harvest sprays which offer an aid to California, Florida, and Texas growers hard hit by the labor shortage. Peaches are not affected by the sprays probably because of the typically short stem of the fruit which is difficult to reach with the spray.

The magic of hormones, first revealed to growers several years ago, has now come to have a new and significant meaning. With labor at a

premium, and the possibility of a season with heavy dropping, harvest sprays may very well become the grower's best friend.

## POINTS TO REMEMBER

By L. P. Batjer, U.S.D.A., Bureau of Plant Industry, Beltsville, Md.

IN order that the maximum benefit may be realized from harvest sprays on apples, the following points should be given careful attention and consideration:

*Timing of application* is probably the most important single factor in the success of harvest sprays. Keep in mind that the effective period is limited and that in order to obtain the best results the spray should be applied just prior to or at the very beginning of the harvest drop. Day-to-day observation as to the progress of the drop on a few typical trees will aid greatly in proper timing and will pay big dividends in the results that are obtained.

*Temperature prevailing during the*

drying period of the spray is an important factor in determining the results obtained. Generally the sprays are more effective when applied at temperatures above 75°F. Applications should be made on the warmest days possible. If a limited amount of spraying is to be done, it would seem feasible to apply it during the warmer part of the day. If it is found necessary to spray at temperatures of 50° to 70°F., the use of stronger sprays than full strength (.001 percent of active hormone substance) would seem to merit consideration.

*Thorough coverage* ranks in importance with proper timing in determining success with harvest sprays. The spray must contact the fruit stem to be effective. As in any spray program, the control can be no more effective than the coverage given.

(Continued on page 8)

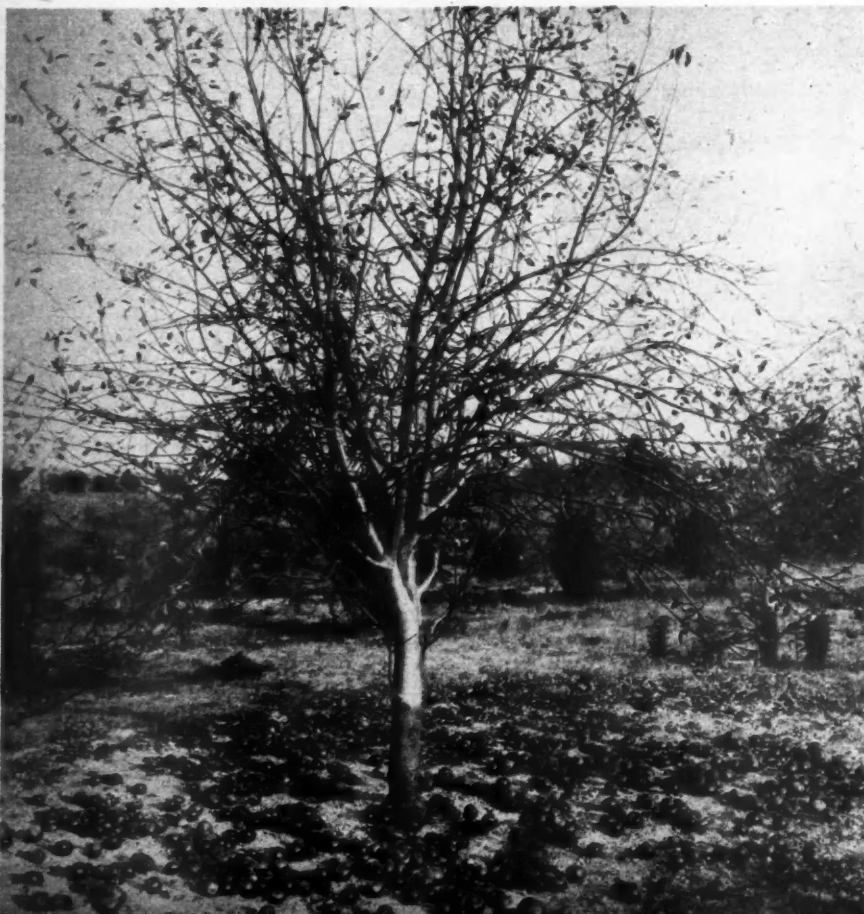


The photographs (at right) by E. W. Grove of the Delaware Agricultural Experiment Station, clearly show the value of harvest sprays in preventing premature drop of Stayman Winesap.



Control of harvest drop of apples. Close-up of Gallia apple tree 36 days after spraying with harvest spray.

Close-up of Gallia apple tree that has *not* been sprayed with harvest spray. Picture taken same day as that above.



## HARVEST SPRAYS

(Continued from page 7)

### SPRAY INSURANCE

By C. W. Ellenwood  
Ohio Agricultural Experiment Station

**T**HIS year, with labor scarce; any device that will safely extend the picking season will be worth while. Growers should regard these sprays as insurance policies and bear in mind that they have not always been as successful as some had hoped. However, anything that offers a chance to prolong harvesting may be worth trying this year.

Growers this fall will be compelled to use many apple pickers who have never picked apples before, and this suggests that they should give more thought to harvest preparations than ever before so that bruising may be held at a minimum. Extra cautions will be needed against accidents both to personnel and equipment.

### HARVEST LABOR

By Lawrence Southwick  
Massachusetts Agricultural Experiment Station

**U**NDoubtedly, successful use of harvest sprays should aid northeastern orchardists materially in their harvesting operations. This is especially true with the larger growers of McIntosh. The period between fruit maturity (good color, size, quality) and normal fruit drop is limited, and this factor will assume added significance in the face of a harvest labor shortage. Here then is where harvest sprays should fit into the picture by prolonging the picking period, thus enabling growers to better handle their crops with the limited and in many cases inexperienced labor which will be available.

### "SAFETY FIRST" WARNING

By A. E. Murneek  
Missouri Agricultural Experiment Station

**A** warning should be sounded in the use of the preharvest sprays. They will not prevent fruit from maturing, though almost invariably they will reduce the drop. If permitted to remain too long on the tree the storage life of apples will be reduced considerably. Late harvesting may not be so serious, for example, with such varieties as Winesap and Gano, but may be extremely injurious to Delicious and Jonathan, if the crop is to be stored for a prolonged period. It is the writer's opinion that much harm has been done to the consumption of apples by the frequent sale of overmature or mealy fruit during the winter and spring seasons.

Photographs from Bureau of  
Plant Industry, U. S. D. A.

JUNE, 1942





By Dean Halliday



A staggered schedule of shipments will help to keep overburdened railroad transportation from bogging down, leaving fruit piled up as shown in above photograph.

# WHAT YOU CAN'T SHIP-STORE

THE FRUIT GROWER'S PATRIOTIC ANSWER TO  
THE PRESENT TRANSPORTATION EMERGENCY



**B**ECAUSE fruit is in the front of foods vital to the health of the nation during the war emergency, as well as afterwards, the fruit grower must shoulder a double responsibility this season: he must produce the largest crops possible to meet the needs of our armed forces and that of civilians, especially defense workers; he must also get his crop to market without imposing too great a burden upon the country's transportation systems, particularly the railroads.

The fruit grower knows the answers to the first part of this problem, that of production, and, he can help to solve the second part—transportation—by adopting a “staggered system” of shipping his crop to market, instead of merely dumping it upon the overburdened railroads.

A serious transportation shortage in this country is no idle threat. By the fall of 1942 the transportation problem will be acute. Realization of high farm production goals will represent a now unknown but certainly large new call upon transportation facilities.

Fortunately, as economic experts point out, we have in this country by far the most efficient and economical railroad system in the world. The railroads have adapted themselves to the needs of the war effort with a degree of effectiveness hardly equalled by any other industry, but even so they cannot entirely make up for growing shortages of highway transportation, nor can they supply our needs for ocean going ships.

If this year's fruit crops, especially the apple crops, are dumped upon the railroads without proper planning and some system of control and timing of shipments, serious transportation delays and breakdowns may result.

Fruit growers, as well as all agriculturists, should support all steps to improve efficiency in the use of railway equipment—such matters as heavier loading per car, faster loading and unloading of cars, more careful timing of shipments, and the like.

It is obvious that with the problem of moving the crops facing fruit growers and railroads alike, that steps should be taken now to arrange stor-

*(Continued on page 12)*

Fruit growers should support all steps to improve efficiency in the use of railway equipment including faster loading and unloading of cars.

# FRUITONE



Labor is the determining factor of profit in many orchards this year. Every labor operation you can save is equivalent to an increased crop.

## HERE'S HOW TO SAVE ON PICKING COSTS

One spraying of FRUITONE applied ten to fourteen days before picking time will hold most fruit on your trees until maximum size and color are attained.

This means that the picking schedule can be spread out so that smaller crews can do the work. Thus, your picking costs will be lowered. In addition, orchardists have found that when their trees have been sprayed with FRUITONE less fruit is knocked off by the pickers.

Remember, FRUITONE, the pioneer pre-harvest drop spray, is not an experiment. For three seasons it has increased the profits in successful orchards all over the country. Hundreds of growers have attested its value in helping to produce fancy, top-price fruit. Order your season's requirements today.



Both experimental evidence and field experience prove that apples, pears and cherries all respond to FRUITONE. Trees sprayed once, ten to fourteen days before picking time, have produced larger, better colored fruit because the fruit is held on the tree until the proper time for harvest.

## STATE NEWS

**WASHINGTON, D. C.**—Truman Nold of the National Apple Institute, announced recently that the annual meeting of the Institute will be held in Washington June 19 and 20 at the Lee-Sherman Hotel.

**MARYLAND**—Labor supply is generally short or limited but spraying is one essential that fruit growers are not neglecting. Some growers have repaired their tenant houses for orchard employees, or have built attractive new houses to encourage the men to stay on the orchards.

The number of "soup wagons" in spraying operations has increased, making it possible for spray rigs to operate constantly. Usually, these supply trucks haul water to the spray rigs, discharging it through a rotary pump into the sprayer tank and the spray materials are added during the filling. The entire operation requires about 5 minutes.—A. F. Vierheller, Sec'y, College Park.

**KANSAS**—The apple bloom on all varieties that survived the Armistice Week freeze of 1940 is surprisingly heavy. Grapes and all small fruits are promising the best crop for several years.

The limited allowance of sugar for canning is creating alarm in the small fruit districts.—Geo. W. Kinkead, Sec'y, Topeka.

**GEORGIA**—W. E. Leigh, for many years active in the United States Department of Agriculture, has been appointed manager of the Industry Committee of the Georgia Peach Marketing Agreement and Order. He is on leave of absence from the Florida Citrus Commission until Sept. 1. The program will prevent the shipment of immature peaches in commerce and provide for restrictions of shipments of inferior-grade and small-size peaches.

**MONTANA**—The season was about two weeks later than last year. Sweet cherry blooms suffered no damage and there is every indication of an excellent crop. In some districts the early bloom of apples was slightly damaged, but a fair crop is anticipated.

Bush fruits suffered very little if any damage.—Geo. L. Knight, Chief Horticulturist, Missoula.

**UTAH**—This year's fruit crop promises to be definitely short in the stone fruits. Peaches, apricots and sweet cherries were injured by the cold weather and have also been subject to severe Spring frost which has taken considerable part of the crop. Definite estimates are not available at the present time.

As a result of this injury and the influx of considerable military personnel and defense workers, the price of fruit in Utah is expected to be very good this season.—A. Stark, Sec'y, Logan.

**INDIANA**—Anticipating the need for additional labor to produce and harvest the food crops, horticultural organizations and the State Farm Bureau are cooperating with their local school authorities in the enrollment and organization of school boys into a Boy's Working Reserve.

Directors and Managers of the Cooperative Marketing Associations of Southern Indiana recently met in the Experimental Orchard near Orleans to review the experiments made in irrigation of strawberry plants. It was learned that comparatively little supplementary water was applied at essential periods of plant development during the summer of 1941 and that only a very few Indiana growers have irrigated strawberries.



in past years. However, one grower, Gus Ahrens, harvested over 900 crates of U. S. No. 1 berries from 4 acres in the 1941 dry season when the average yield of the state was less than 50 crates per acre.—Monroe McCown, Sec'y, Lafayette.

**OHIO**—The average date of full bloom for the standard apple varieties at Wooster has been May 8 for the past 30 years. This year, most apple varieties reached full bloom stage on April 30.

A very good apple prospect was reported from all sections of the state indicating that Ohio could easily have a crop nearly as large as that of last year, and it appears from blossom prospects that the peach crop might develop into 50 to 75 percent of last year's crop. In southern Ohio most low ground orchards were heavily damaged with tender varieties a failure, and this section will probably not have a crop in excess of 20% of last year's heavy crop.

The cherry crop will probably be somewhat below last year's heavy crop and this situation also prevails with pears. Grape and small fruit prospects are favorable.—Frank H. Beach, Extension Horticulturist, Columbus.

**MINNESOTA**—Fruit growers are concerned about the restricted sugar ration for canning with respect to the effect on the market for fresh fruit.

The Minnesota Agricultural Experiment Station at University Farm, St. Paul, has prepared a leaflet of suggestions for conserving sugar including the use of other sweetening materials in canning, preserving, and freezing of fruits.—J. D. Winter, Sec'y, Mound.

**ILLINOIS**—The Southern Illinois Horticultural Society at a special meeting held at Anna, Illinois, May 12th, adopted a resolution whereby Donald Nelson will be asked to use every effort to make the allowance of sugar for home processing, (1) on the basis of 90% of the amount used for canning in 1941, the same as is being rationed to commercial canners, (2) some similar plan, rather than on the 5 pound per person basis which is totally inadequate for families practicing home canning and which will result in substantial loss, waste and decay of fruits produced this year.—Curt E. Eckert, Sec'y, Southern Illinois Horticultural Society.

**FLORIDA**—Dr. C. V. Noble, State Agricultural Extension Service economist, predicts the 1941-1942 crop of Florida citrus will probably return a higher net income than in any other recent year. Reasons cited by Dr. Noble are: 38% increase in industrial workers' incomes, the advertising and research programs of the Florida Citrus Commission, the cooperation between the citrus industry and state and federal governments, and the efficient service of rail and motor transportation companies, which proved adequate despite the loss of boat transportation service.

**WISCONSIN**—Present prospects are that there will be another bumper cherry crop in Door County despite the record ones in 1940-1941. If the 1942 crop should ripen comparable with the 25,000,000 lbs. of last year, the gravity of the picking situation will be acute. Mexicans and Indians have already been contracted for in large numbers, but they will only help to relieve the situation.

**CALIFORNIA**—Non-Japanese operators have now taken over most of the Southern California vegetable acreage left by evacuated Japanese. Although the rains in April were well timed, strawberries were damaged and prices for California oranges advanced sharply due to reduction in shipments caused by rain.

**WASHINGTON**—Twenty thousand visitors and home folk celebrated another coming of Spring in Apple-Land when the 23rd Annual Apple Blossom Festival was held in Wenatchee the last week-end in April. The event was a huge success and accomplished its purpose at a minimum of expense with very little if any diversion from Wenatchee's efforts in war work.

JUNE, 1942

# FRUITONE

## SHOWS AMAZING RESULTS AFTER 3 YEARS USE

APPLES

PEARS

CHERRIES

### 1. INCREASES SIZE AND COLOR

By holding the fruit on the tree until it attains both the size and color that you want.

### 2. REDUCES LOSS FROM DROP

Windfalls take a big toll each year. Reduce this loss in 1942 by spraying with FRUITONE. Much more of your fruit will stay on the tree and ripen to full size and color.

### 3. INCREASES SIZE AND VALUE OF CROP

Reports from Washington in 1940 showed apples one grade higher because of the harvest spray. Pear growers report as much as 50% larger crop.

### 4. COSTS LITTLE TO USE

When you think that it costs only about 1c per bushel of fruit to spray with FRUITONE, you can see what good orchard management it is to include FRUITONE in your spray schedule.



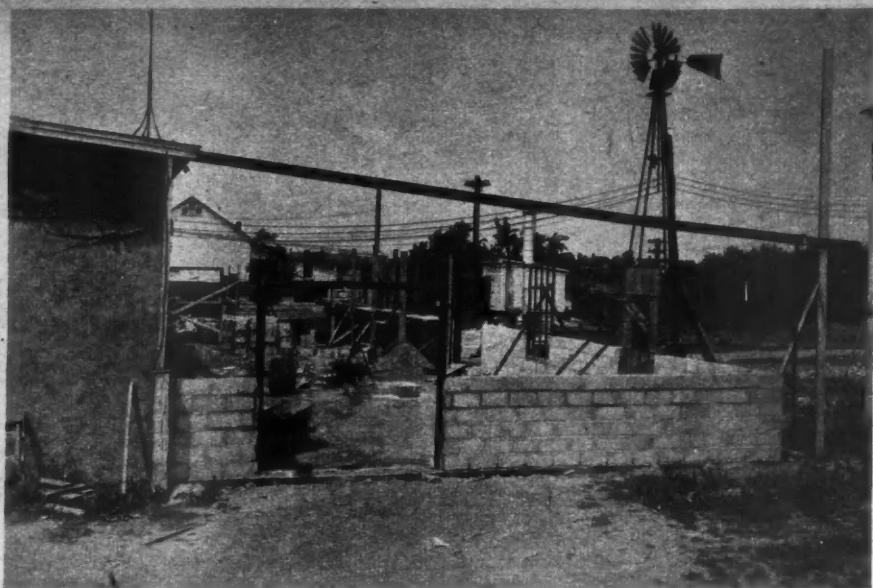
FRUITONE was the first pre-harvest drop spray and was developed by the leading manufacturer of plant hormones. Large and small growers in every part of the country have used it to their satisfaction. One New England grower reports 81% fancy pack from his FRUITONE sprayed McIntosh.

**CHERRIES**—Montmorency Cherries have shown less tannin and more sugar with the FRUITONE spray. Morello Cherries showed far less brown stem and much juicier fruits.

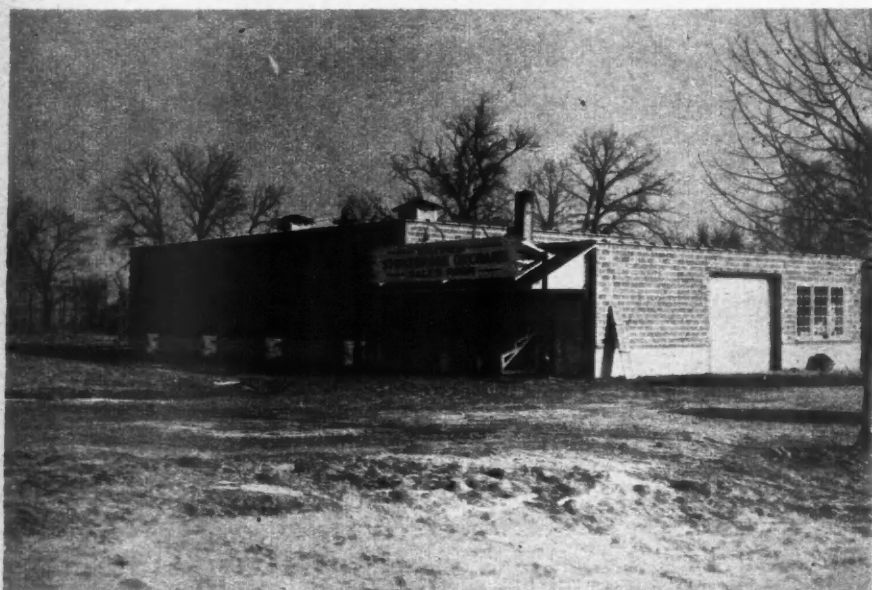
Write today for prices, giving the number and age of your trees.

Horticultural Division AF-1

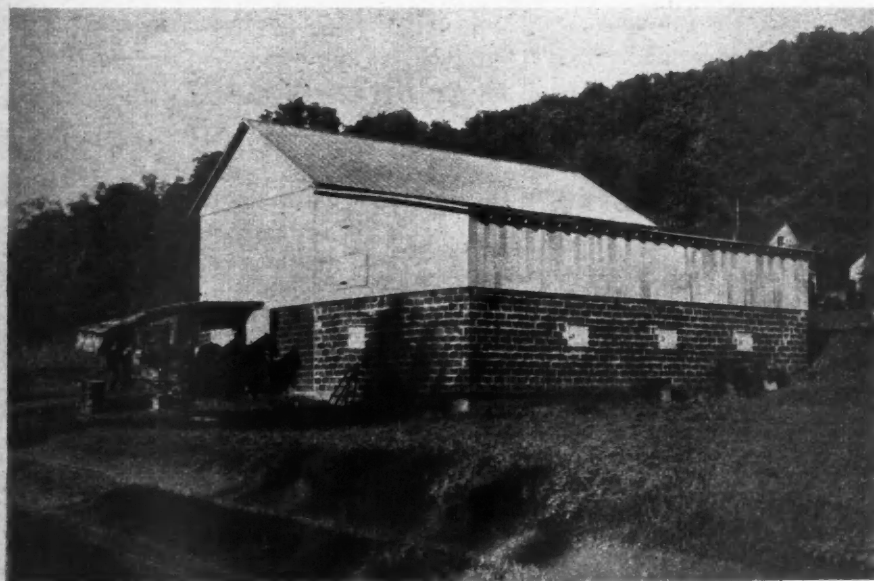
**AMERICAN CHEMICAL PAINT CO.**  
Ambler, Pa.



With concrete block available for use as a structural material there is no reason why a grower cannot proceed with construction of a storage as illustrated in the photograph above.



The storage and sales room above shows a type of concrete block construction which could be reproduced in smaller size and modified design.



Even today a grower might find it possible to build a storage using a combination of structural materials such as concrete block and frame construction as shown in the above photograph.

## STORAGE

(Continued from page 9)

age space in order that fruit harvest can be held on the farm for a time, in case of transportation shortage.

Cold storage on the fruit farm is accepted today as sound practice. The benefits to the grower-owner are numerous.

First, and, of course, highly important this year, is the fact that with adequate storage on the farm, a grower can control and "space out" his shipping schedules.

Secondly, when a grower has his own storage on the farm he does not have to sell his crop at the first price offered because he can hold his apples until prices and shipping conditions are satisfactory.

Storage on the farm also makes it possible—and profitable—to grade and pack during the winter months to suit the requirements of individual purchasers or the market.

What about priorities? They must be considered, of course, in planning and building a fruit farm storage today.

Cement and concrete block and insulating materials are available as structural materials for construction of a storage. Lumber also, in the amounts required for trim, ventilators, doorways and roof structure can be had from local sources under agricultural priorities. In fact, with proper storage of fruit crops essential in relieving the burden being placed upon motor and railroad transportation, a grower will be justified in appealing for special priorities to obtain the materials needed to build his farm storage. And upon investigation, government officials could hardly do otherwise than approve the grower's request.

Mechanical refrigeration equipment may be difficult to obtain under priorities. It is possible and practical, however, for a grower to build a storage building to be used for the duration as common storage, but so designed that it can be converted to mechanical refrigeration once the emergency is ended.

Even though priorities may restrict the grower somewhat in the choice of building materials, he should bear in mind that exterior appearance and good design should not be overlooked in planning a storage. The storage itself will bring customers to the farm.

Cold storage on the fruit farm has opened up a new era of fruit growing and marketing. In considering your own farm storage take the long view of it: Plan right and build right.

And if you plan to build a storage this season, do so with the idea of using it to regulate your fruit shipments and thereby lessen the seasonal load on the already overburdened railroads. This is not only the practical, but the *patriotic* thing to do.



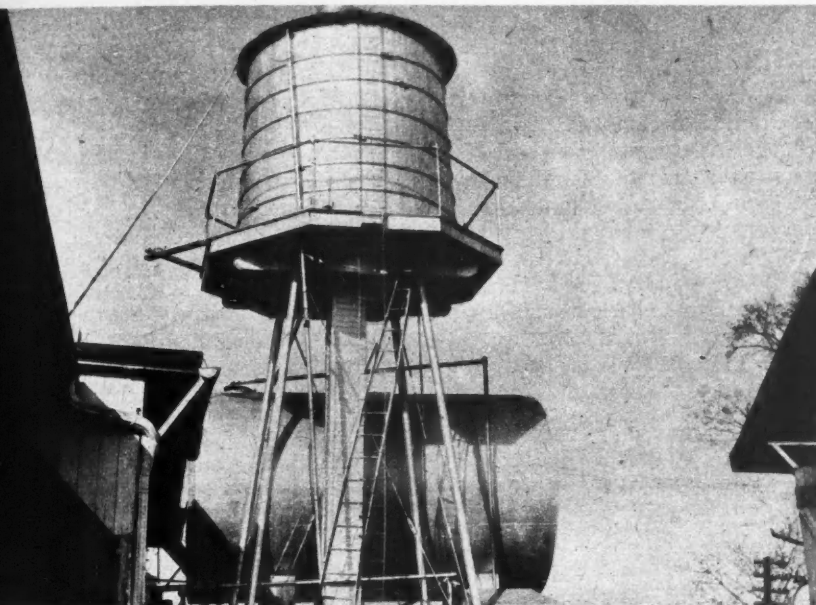
# PUMPS IN PLACE OF LABOR DURING THE EMERGENCY

By ROY C. JAMES



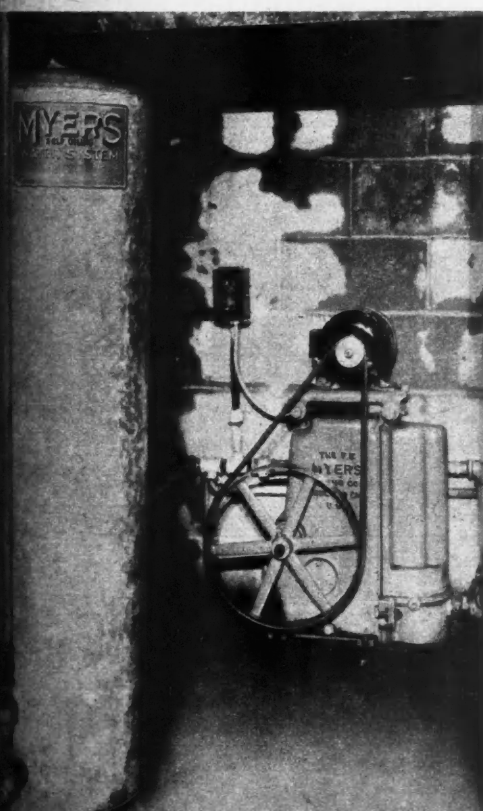
FRUIT  
for  
VICTORY

Centrifugal pump driven by gasoline engine on 200-acre orchard near Painesville, Ohio, pumping water from spring-fed pond into 1,800 gallon spray water storage tank.



Water storage tank (above) for stationary spray system, Reed Orchards, Vincennes, Ind.

Photograph (below left) shows a Myers self-oiling deep well water system installation, which pumps from a well 125 feet deep at the farm of H. L. Mowrer, Madison, Ohio.



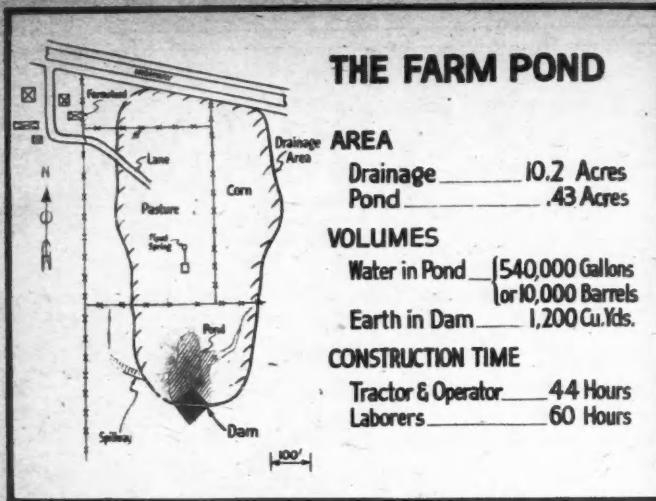
It is reliably estimated that seven hours of labor of each two man spray crew can be saved by improved water facilities in orchards. On many farms more than one half the time of spraying is spent traveling to and from the trees and in filling the tank. Such labor losses are apt to be serious in a labor shortage such as fruit growers face at this time and can be reduced by the installations of additional pumping units and a more convenient water supply. Spraying which can be carried on continuously and progressively through the orchard requires in most cases, carefully planned piping, numerous soup wagons, additional elevated water storage tanks and more pumping units. The cost of such mechanical equipment quickly pays for itself in better, more timely spraying and

saving of labor and materials. While water conditions in every orchard differ, the one essential of adequate distribution of water throughout the orchard remains the same.

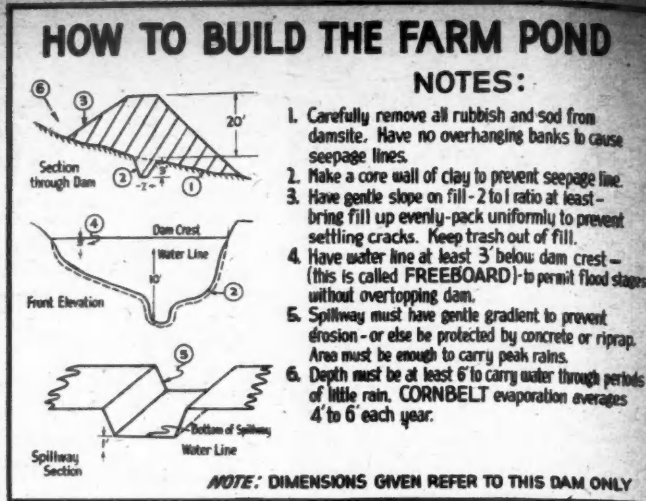
**Tanks:** Water where needed in the orchard is most conveniently and economically accomplished by the elevated water storage tank. The size of the water storage tank should be large enough to hold sufficient water for one day's spraying. In some cases where the water supply is small, the storage tank will have to be larger because the problem of refilling the tank will take more time. The location of a tank again depends upon the orchard. In general it will be found most effective to have the tanks on the highest point in the orchard and equidistant from all other tanks, or if there is no other water storage, in the middle of the orchard. The outlet from the tank should be large enough to fill the spray rig rapidly. In some cases it may be necessary to pipe the water from its source to the tank. This may mean a higher installation cost but it must be remembered that it is cheaper to pipe water than to carry it.

**Type and Size of Pumping Units:** The pump is the heart of any water system and the choice of the pump should be made only after careful consideration. However, there are general rules that should be followed. The pump must have a capacity slightly less than the flow of the water at its driest spraying period. The shallow-well force pump is probably the most common. These pumps are in general

(Continued on page 14)



The planned view of a typical farm pond.



Courtesy the Caterpillar Tractor Co.  
 Details to be followed in the construction of a farm pond.

## PUMPS

(Continued from page 13)

designed for a maximum pressure of sixty-five pounds, and are able to raise the water approximately one hundred and fifty feet above the pump. Shallow-well pumps can be obtained in almost any size. The type most generally used is the medium-sized pump delivering from eight to ten gallons per minute. Shallow-well pumps will draw water up to twenty-two feet, and should not be used where the draw is greater.

The centrifugal pump has a small total lift of water. It will deliver water only thirty feet above the pump, its suction lift should not exceed three feet. This type of pump will deliver large quantities of water at a rapid rate. The advantages of the centrifugal pump are its large capacity of water at low lifts and its ability to pump muddy water with little wear.

The deep-well pump must be used where the vertical distance to the water is more than twenty-two feet. Generally deep-well pumps are designed to pump against a maximum pressure of sixty-five pounds, which means they can raise water one hundred and fifty feet above the pump. This type of pump will be found to be efficient and the kind most usually required in orchard water systems.

**Water Holes & Earth Reservoirs:** It may be possible for the lucky grower to dispense with a well and to use a water hole or to construct an earth reservoir. Many orchards are supplied with water in just such a way but this method does present certain hazards. In June or sometimes even in May such sources of water are liable to dry up. A supply for only part of the season is almost as bad as no supply at all. However, if the water hole or earth reservoir is large enough the water supply for the season's spraying will be adequate. The size of the reservoir must be large enough to take care of seepage through the ground, or evaporation

at the surface, and, of course, to supply water for spraying. There should also be a surplus for an unusually dry year. The correct size of an earth reservoir cannot accurately be determined because the amount of seepage varies in different soils. Seepage may vary from one-half to two inches in twenty-four hours, or from one to five feet of depth in a month. Evaporation also adds to the loss. For the month of May a good average loss would be four inches, for June about five, and July, six. Up to May 15, the earth reservoir will be kept full by rains, but from the middle of May until the harvest season one cannot be certain of enough rain to replace the

loss by evaporation and seepage. Thus it becomes necessary to allow for a loss of five feet due to seepage and at least one foot for evaporation. However, seepage losses can be reduced by a clay substance which swells enormously, sealing cracks and leaks even in sand. To deliver the water from the reservoir to the spray rig in large quantities rapidly, a centrifugal pump should be installed.

The basic characteristics of various pumps are illustrated in the chart below. The installation of a water system will soon pay for itself in labor saving, wear and tear on equipment and the more complete control of pests.

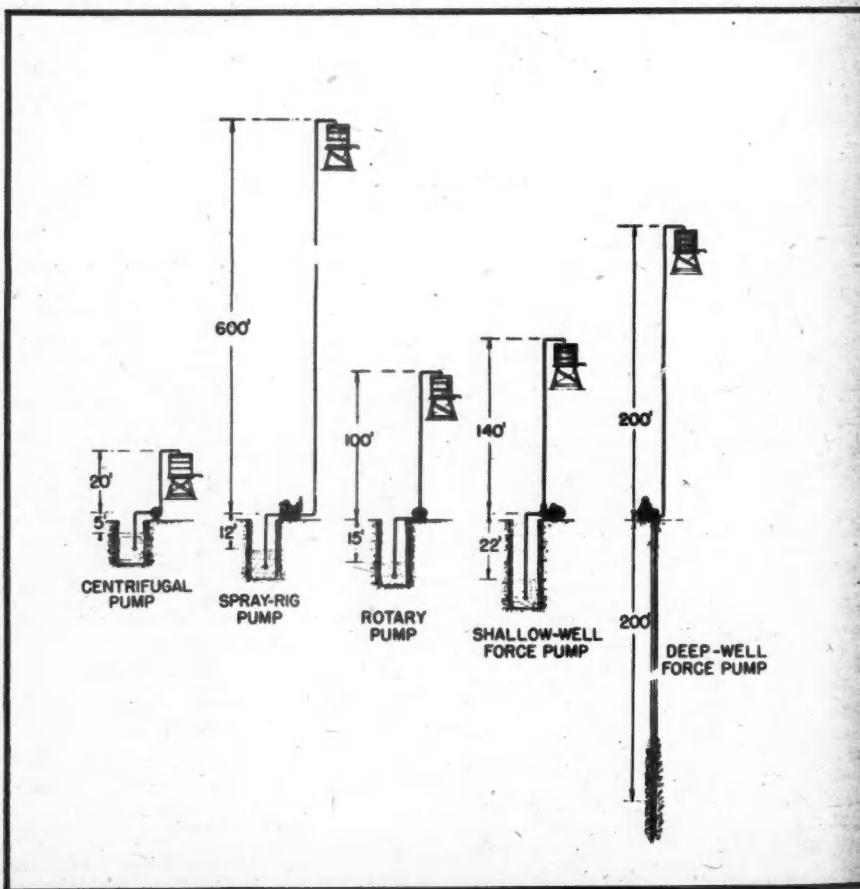


Chart from "Water Supply for Orchards" Cornell Extension Bulletin No. 367

The various types of pumps used for pumping water for the orchard supply are shown in comparison with their maximum suction lift and their maximum elevation.



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# INSECT AND DISEASE CONTROL



## DUSTING EQUIPMENT

### Dusters

#### HAND

John Bean Mfg. Co., Lansing, Mich.  
E. C. Brown Co., Rochester, N.Y.  
Dobbins Mfg. Co., Elkhart, Ind.  
A. B. Farquhar Co., Ltd., York, Pa.  
H. D. Hudson Mfg. Co., Chicago, Ill.  
Lake Erie Steel & Blanking Co., Cleveland, Ohio  
Los Angeles Chemical Co., Los Angeles, Calif.  
Messinger Mfg. Co., Tatamy, Pa.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Nico-Dust Mfg. Co., Los Angeles, Calif.  
Root Mfg. Co., Cleveland, Ohio  
D. B. Smith & Co., Utica, N.Y.  
Stauffer Chemical Co., New York, N.Y.  
Edwin C. Tyson, Flora Dale, Pa.

#### POWER

Agicide Laboratories, Inc., Milwaukee, Wis.  
American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
A. B. Farquhar Co., Ltd., York, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Master Fan Corp., Los Angeles, Calif.  
Messinger Mfg. Co., Tatamy, Pa.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Root Mfg. Co., Cleveland, Ohio  
Shunk Mfg. Co., Bucyrus, Ohio  
Edwin C. Tyson, Flora Dale, Pa.

### Mixers, Dust

Agicide Laboratories, Inc., Milwaukee, Wis.  
"Friend" Mfg. Co., Gasport, N.Y.  
Lake Erie Steel & Blanking Co., Cleveland, Ohio  
Messinger Mfg. Co., Tatamy, Pa.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Root Mfg. Co., Cleveland, Ohio  
Shunk Mfg. Co., Bucyrus, Ohio

## DUSTING MATERIALS

### Dust Fillers

Agicide Laboratories, Inc., Milwaukee, Wis.  
American Lime & Stone Co., Bellefonte, Pa.  
Calcium Carbonate Co., Chicago, Ill.  
France Stone Co., Toledo, Ohio  
Gibsonburg Lime Products Co., Gibsonburg, Ohio  
Ohio Hydrate & Supply Co., Woodville, Ohio  
United States Gypsum Co., Chicago, Ill.  
Woodville Lime Products Co., Toledo, Ohio

### Fluorine Dusts

Aluminum Ore Co., Pittsburgh, Pa.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.  
Stauffer Chemical Co., New York, N.Y.

### Lime

Aluminum Ore Co., Pittsburgh, Pa.  
American Lime & Stone Co., Bellefonte, Pa.  
France Stone Co., Toledo, Ohio  
Gibsonburg Lime Products Co., Gibsonburg, Ohio  
Kimbalton Lime Co., Inc., Shawsville, Va.  
Marble Cliff Quarries Co., Columbus, Ohio  
Ohio Hydrate & Supply Co., Woodville, Ohio  
Scioto Lime & Stone Co., Delaware, Ohio  
Tennessee Corp., Lockland, Ohio  
United States Gypsum Co., Chicago, Ill.  
Woodville Lime Products Co., Toledo, Ohio

### Monohydrated Copper Sulphate Dusts

Ansbacher-Siegle Corp., Brooklyn, N.Y.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
McCormick & Co., Inc., Baltimore, Md.  
Mechling Bros. Chemical Co., Camden, N.J.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Phelps Dodge Refining Corp., New York, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

### Nicotine Dusts

Ansbacher-Siegle Corp., Brooklyn, N.Y.  
California Spray-Chemical Corp., Richmond, Calif.

Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
McCormick & Co., Inc., Baltimore, Md.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Nicotine Production Corp., Clarksville, Tenn.  
Tobacco By-Products & Chemical Corp., Louisville, Ky.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

### Pyrethrum Dusts

Agkem Inc., Quincy, Ill.  
Ansbacher-Siegle Corp., Brooklyn, N.Y.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
General Chemical Co., New York, N.Y.  
Kay-Fries Chemicals, Inc., New York, N.Y.  
McCormick & Co., Inc., Baltimore, Md.  
McLaughlin Gormley King Co., Inc., Minneapolis, Minn.  
Mechling Bros. Chemical Co., Camden, N.J.  
Micronizer Processing Co., Inc., Moorestown, N.J.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
S. B. Penick & Co., New York, N.Y.  
B. G. Pratt Co., New York, N.Y.  
Stauffer Chemical Co., New York, N.Y.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

### Rotenone Dusts

Agicide Laboratories, Inc., Milwaukee, Wis.  
Agkem Inc., Quincy, Ill.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
John Lucas Co., Philadelphia, Pa.  
McCormick & Co., Inc., Baltimore, Md.  
Mechling Bros. Chemical Co., Camden, N.J.  
Micronizer Processing Co., Inc., Moorestown, N.J.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
National Sulphur Co., Inc., New York, N.Y.  
Naugatuck Chemical Div., United States Rubber Co., New York, N.Y.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
S. B. Penick & Co., New York, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
Stauffer Chemical Co., New York, N.Y.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

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E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
Koppers Co., Tar and Chemical Div., Pittsburgh, Pa.  
John Lucas Co., Philadelphia, Pa.  
McCormick & Co., Inc., Baltimore, Md.  
Mechling Bros. Chemical Co., Camden, N.J.

AMERICAN FRUIT GROWER

Merrimac Chemical Co., Everett, Mass.  
Micronizer Processing Co., Inc., Moorestown, N.J.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
National Sulphur Co., Inc., New York, N.Y.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
South Haven Chemical Co., South Haven, Mich.  
Stauffer Chemical Co., New York, N.Y.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

### Tri-Basic Copper Sulphate Dusts

General Chemical Co., New York, N.Y.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Sherwin-Williams Co., Cleveland, Ohio  
Tennessee Corp., Atlanta, Ga.

## ORCHARD SANITATION

### Acetylene Exploder

Salt Lake Stamp Co., Salt Lake City, Utah

## FRIGHTEN THE BIRDS

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43 W. Broadway, Salt Lake City, Utah**

### Bands, Tree

John Bacon Inc., Gasport, N.Y.  
Bemis Bro. Bag Co., St. Louis, Mo.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Edwin H. House, Saugatuck, Mich.  
M. H. Hunt & Son, Lansing, Mich.  
M. A. Koeller, Barry, Ill.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
Owens-Illinois Glass Co., Toledo, Ohio  
F. A. Read, Inc., Winchester, Va.  
Rice, Trew & Rice Co., Big Rapids, Pa.  
Tanglefoot Co., Grand Rapids, Mich.  
Edwin C. Tyson, Flora Dale, Pa.

### Beta Naphthol

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.  
Braun-Knecht-Heimann-Co., San Francisco, Calif.  
Sherwin-Williams Co., Cleveland, Ohio

### Brush Burners

Aeroll Burner Co., Inc., West New York, N.J.  
E. C. Brown Co., Rochester, N.Y.  
Dobbins Mfg. Co., Elkhart, Ind.  
Hauk Mfg. Co., Brooklyn, N.Y.  
Ker-O-Kil Mfg. Co., San Francisco, Calif.

### Brush Cutters

E. C. Atkins & Co., Indianapolis, Ind.  
Bartlett Mfg. Co., Detroit, Mich.  
Killefer Mfg. Corp., Ltd., Los Angeles, Calif.  
A. M. Leonard & Son, Piqua, Ohio  
Seymour Smith & Son, Inc., Oakville, Conn.  
Carroll R. Tiffany, Conklin, N.Y.  
J. Wiss & Sons Co., Newark, N.J.

### Calcium Chloride

American Cyanamid & Chemical Corp., New York, N.Y.  
Dow Chemical Co., Midland, Mich.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Harshaw Chemical Co., Cleveland, Ohio  
Merck & Co., Inc., Rahway, N.J.  
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.  
Solvay Sales Corp., New York, N.Y.  
Texas Co., New York, N.Y.

### Ethylene Dichloride

Carbide & Carbon Chemicals Corp., New York, N.Y.  
Dow Chemical Co., Midland, Mich.  
Fred Durand, Woodbury, Ga.  
General Chemical Co., New York, N.Y.  
McKenzie Chemical Co., Montezuma, Ga.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
G. S. Robins Co., St. Louis, Mo.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

JUNE, 1942



# INSECT AND DISEASE CONTROL

## Insect Barriers

California Spray-Chemical Corp., Richmond, Calif.  
Interstate Chemical Mfg. Co., Reading, Pa.  
Standard Oil Co. of Indiana, Chicago, Ill.  
Tanglefoot Co., Grand Rapids, Mich.

## Insect Electrocuters

Alert Electric Door Control Co., Los Angeles, Calif.  
Chicago Electric Scientific Co., Chicago, Ill.  
Insect Electrocuter Co., Cincinnati, Ohio  
Monolite Co., Berkeley, Calif.

## Rodent Destroyers

### FIREARMS

Marlin Firearms Co., New Haven, Conn.  
Remington Arms Co., Inc., Bridgeport, Conn.  
Savage Arms Co., New York, N.Y.  
Winchester Repeating Arms Co., New Haven, Conn.

### POISONS

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.  
Antrol Laboratories, Inc., Los Angeles, Calif.  
General Chemical Co., New York, N.Y.  
K-R-O Co., Springfield, Ohio  
Jean Maclean & Associates, Bridgeton, Ind.  
Mallinckrodt Chemical Works, St. Louis, Mo.  
Rat Biscuit Co., Springfield, Ohio  
Rose Rat Exterminator Co., Chicago, Ill.  
D. B. Smith & Co., Inc., Utica, N.Y.

### TRAPS

Animal Trap Co. of America, Lititz, Pa.  
Antrol Laboratories, Inc., Los Angeles, Calif.  
Michigan Wire Goods Co., Niles, Mich.

## Rodent Repellents

Castle Chemical Co., Castle Rock, Minn.  
Clarion Development Co., Inc., Clarion, Pa.  
Hammond Paint & Chemical Co., Beacon, N.Y.  
J. Livingstone, Jr., Milwaukee, Wis.  
Rollin H. Tabor, Mt. Vernon, Ohio  
Tanglefoot Co., Grand Rapids, Mich.

## Scrapers, Bark

Bartlett Mfg. Co., Detroit, Mich.  
Fruit Packing Equipment Co., Swoppe, Va.  
A. M. Leonard & Son, Piqua, Ohio  
Carroll R. Tiffany, Conklin, N.Y.  
Edwin C. Tyson, Flora Dale, Pa.

## Tree Healing Compounds

Bartlett Mfg. Co., Detroit, Mich.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
Clarion Development Co., Inc., Clarion, Pa.  
Flintkote Co., New York, N.Y.  
Joseph A. Fraim Co., Inc., Norfolk, Va.  
M. H. Hunt & Son, Lansing, Mich.  
Interstate Chemical Mfg. Co., Reading, Pa.  
A. M. Leonard & Son, Piqua, Ohio

## Tree Protectors

Brown Fence & Wire Co., Cleveland, Ohio  
Chase Bag Co., Chagrin Falls, Ohio  
Kitselman Bros., Muncie, Ind.

## KILL WEEDS WITH HAUCK FLAME GUN!

2000° F. controlled heat quickly, easily destroys weeds (seeds and all), poison ivy, crab grass, insects, etc. Keeps driveways, fences, irrigation ditches, orchards, etc. clean. Hundreds of home and farm uses. Burns heretofore. Inexpensive—safe—easy to use. 10 day trial. 7 popular priced models. Write today for free catalog and prices.  
**HAUCK MFG. CO.**  
161 Tenth St., Brooklyn, N. Y.

## Weed Killers

### BURNERS AND TORCHES

Aeroll Burner Co., Inc., West New York, N.J.  
E. C. Brown Co., Rochester, N.Y.  
Dobbins Mfg. Co., Elkhart, Ind.  
Hauck Mfg. Co., Brooklyn, N.Y.  
Ker-O-Kil Mfg. Co., San Francisco, Calif.

### CHEMICALS

California Spray-Chemical Corp., Richmond, Calif.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
Dow Chemical Co., Midland, Mich.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
James Good, Inc., Philadelphia, Pa.  
Harshaw Chemical Co., Cleveland, Ohio  
Interstate Chemical Mfg. Co., Reading, Pa.  
Mallinckrodt Chemical Works, St. Louis, Mo.  
Merck & Co., Inc., Rahway, N.J.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.  
Sherwin-Williams Co., Cleveland, Ohio  
Standard Agricultural Chemicals, Inc., Hoboken, N.J.  
Stauffer Chemical Co., Inc., New York, N.Y.

JUNE, 1942

Edwin C. Tyson, Flora Dale, Pa.  
Wheeler, Reynolds & Stauffer, San Francisco, Calif.

## SPRAYING EQUIPMENT

### Pumps, Water System

American-Marsh Pumps, Inc., Battle Creek, Mich.  
American Well Works, Aurora, Ill.  
John Bean Mfg. Co., Lansing, Mich.  
Campbell & Budlong Machine Works, San Jose, Calif.  
A. D. Cook, Inc., Lawrenceburg, Ind.  
Crane Co., Chicago, Ill.  
Dayton Pump & Mfg. Co., Dayton, Ohio  
Decatur Pump Co., Decatur, Ill.  
Deming Co., Salem, Ohio  
Dempster Mill Mfg. Co., Beatrice, Nebr.  
Domestic Engine & Pump Co., Shippensburg, Pa.  
Duro Co., Dayton, Ohio

Fairbanks, Morse & Co., Chicago, Ill.  
Flint & Walling Mfg. Co., Kendallville, Ind.  
Goulds Pumps, Inc., Seneca Falls, N.Y.  
Kewanee Private Utilities Co., Kewanee, Ill.  
March Automatic Irrigation Co., Muskegon, Mich.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Novo Engine Co., Lansing, Mich.  
Parma Water Lifter Co., Parma, Idaho  
Peerless Pump Co., Massillon, Ohio  
Pomona Pump Co., Pomona, Calif.  
Trupar, Inc., Dayton, Ohio  
Weinman Pump Mfg. Co., Columbus, Ohio  
Worthington Pump & Machinery Corp., Holyoke, N.J.

### Tanks (Wood), Water Storage

W. E. Caldwell Co., Inc., Louisville, Ky.  
Challenge Co., Batavia, Ill.  
Dunck Tank Works, Milwaukee, Wis.  
Kalamazoo Tank & Silo Co., Kalamazoo, Mich.  
Pacific Lumber Co., San Francisco, Calif.

*Proof that it pays to choose MYERS Sprayers*



From an enthusiastic Myers owner: "Ten years ago we purchased three new sprayers—one Myers and two other makes. Last spring when we needed additional equipment, we bought two new Myers No. 740X Sprayers and completed the year's schedule for our 850 acres without a single interruption."

Three different makes of sprayers, working side by side for years—and Myers won out! Definitely proved its superior performance—its fast, complete coverage for bigger, better yields with less labor—its dependable service that saves time and money.

There's a Myers Sprayer of the correct type and size for your orchard or row crops. Famous Silver Clouds with Myers heavy-duty Bulldozer and Vertical pumps offer large capacities and high pressures, and many advanced features. Send for free catalog and dealer's name.



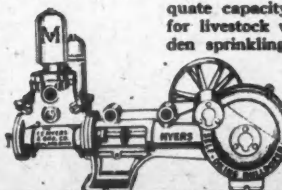
## Get These CATALOGS

Write for catalog No. PS42 on Myers Power Sprayers, and catalog No. MS42 on Myers Power Pumps and Water Systems.

**THE F. E. MYERS & BRO. COMPANY**  
Mfrs. of Farm Operating Equipment  
590 Fourth St., Ashland, Ohio

## Keep Plenty of Water HANDY!

Big gallonage of water—an abundant, unfailing supply to orchard tanks—is needed to meet today's requirements of increased production and labor-saving. To avoid time-wasting long hauls and risk of a water shortage, thousands of growers have already installed power pumps or water systems—and many of these units have adequate capacity not only for spraying but for livestock watering, household use, garden sprinkling and irrigation. Myers ruggedly-built power pumps and dependable water systems assure you efficient, low-cost performance over the years. Types and capacities for all needs. Ask your Myers dealer.



# INSECT AND DISEASE CONTROL

## Spray Accessories

### GUNS

John Bacon Inc., Gasport, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
Deming Co., Salem, Ohio  
Dobbins Mfg. Co., Elkhart, Ind.  
Double Twirler Spray Nozzle Corp., Red Hook, N.Y.  
Eureka Mower Co., Utica, N.Y.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
W. L. Hamilton & Co., Bangor, Mich.  
Hardie Mfg. Co., Hudson, Mich.  
H. D. Hudson Mfg. Co., Chicago, Ill.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.  
Edwin C. Tyson, Flora Dale, Pa.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.

## HAMILTON

"Spray Guns that pay"

Your Spray Program is no better than your Spray Gun

See the New Style Hamilton Guns with Controlled Streamline

**W. L. HAMILTON & CO.**  
BANGOR, MICHIGAN

Seven Models A GUN FOR EVERY PURPOSE  
Send for FREE Catalog

### HOSE

John Bacon Inc., Gasport, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
Boston Woven Hose & Rubber Co., Boston, Mass.  
Broadway Rubber Mfg. Co., Louisville, Ky.  
Campbell & Budlong Machine Works, San Jose, Calif.  
Continental Rubber Works, Erie, Pa.  
Deming Co., Salem, Ohio  
Dobbins Mfg. Co., Elkhart, Ind.  
Electric Hose & Rubber Co., Wilmington, Del.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
B. F. Goodrich Co., Akron, Ohio  
Goodyear Tire & Rubber Co., Akron, Ohio  
Hardie Mfg. Co., Hudson, Mich.

### HIGH-PRESSURE SPRAY HOSE

ANY PRESSURE TO 1000 LBS. — ANY LENGTH  
Size —  $\frac{3}{8}$ " -  $\frac{7}{16}$ " -  $\frac{1}{2}$ " -  $\frac{3}{4}$ "  
also  
 $\frac{1}{2}$ " -  $\frac{7}{16}$ " -  $\frac{1}{2}$ " and  $\frac{3}{4}$ " High Pressure Couplings  
PROF. SERVICE — LOW PRICES  
Write for Free Sample

**BROADWAY RUBBER MFG. CO.**

Manufacturers and Engineers since 1901  
529 E. Broadway Louisville, Kentucky

A. M. Leonard & Son, Piqua, Ohio  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Quaker Rubber Corp., Philadelphia, Pa.  
Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown, Ohio  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.  
Edwin C. Tyson, Flora Dale, Pa.  
United States Rubber Co., New York, N.Y.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.

### NOZZLES AND BROOMS

John Bean Mfg. Co., Lansing, Mich.  
Campbell-Hausfeld Co., Harrison, Ohio  
Deming Co., Salem, Ohio  
Dobbins Mfg. Co., Elkhart, Ind.  
Double Twirler Spray Nozzle Corp., Red Hook, N.Y.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
W. L. Hamilton & Co., Bangor, Mich.  
Hardie Mfg. Co., Hudson, Mich.  
H. D. Hudson Mfg. Co., Chicago, Ill.  
McClain Brothers Co., Canton, Ohio  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Robey Mfg. Co., East Lansing, Mich.  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.  
Edwin C. Tyson, Flora Dale, Pa.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.

### PRESSURE GAUGES

John Bean Mfg. Co., Lansing, Mich.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.

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Hardie Mfg. Co., Hudson, Mich.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Edwin C. Tyson, Flora Dale, Pa.

### RODS

John Bean Mfg. Co., Lansing, Mich.  
Dobbins Mfg. Co., Elkhart, Ind.  
Eureka Mower Co., Utica, N.Y.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
W. L. Hamilton & Co., Bangor, Mich.  
Hardie Mfg. Co., Hudson, Mich.  
Messmer Brass Co., St. Louis, Mo.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.  
Edwin C. Tyson, Flora Dale, Pa.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.

### Spray Clothing

Broadway Rubber Mfg. Co., Louisville, Ky.  
Goodall Rubber Co., Inc., Philadelphia, Pa.  
Hood Rubber Co., Watertown, Mass.  
Miller Rubber Co., Akron, Ohio  
Mishawaka Rubber & Woolen Mfg. Co., Mishawaka, Ind.  
B. C. Tillinghast Rubber Co., Philadelphia, Pa.  
A. J. Tower Co., Boston, Mass.

## TOWER'S

'FISH BRAND' OILED  
SUITS and HATS  
for spraying protection  
to outdoor workers



Roomy and of great durability these garments afford the unusual measure of comfort and protection particularly required by spraymen.

Sold by all Good Dealers

Write for Catalog AG



**A. J. TOWER CO.**

BOSTON, MASS.

### Spray Hose Fittings

John Bacon Inc., Gasport, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
Broadway Rubber Mfg. Co., Louisville, Ky.  
Campbell & Budlong Mach. Wks., San Jose, Calif.  
Campbell-Hausfeld Co., Harrison, Ohio  
Central Brass Co., Cleveland, Ohio  
Dobbins Mfg. Co., Elkhart, Ind.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Goodall Rubber Co., Philadelphia, Pa.  
B. F. Goodrich Co., Akron, Ohio  
Goodyear Tire & Rubber Co., Akron, Ohio  
W. L. Hamilton & Co., Bangor, Mich.  
Hardie Mfg. Co., Hudson, Mich.  
A. M. Leonard & Son, Piqua, Ohio  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.  
B. C. Tillinghast Rubber Co., Philadelphia, Pa.  
United States Rubber Co., New York, N.Y.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.

### Spray Protection

#### FACE SHIELDS

Chicago Eye Shield Co., Chicago, Ill.

#### GOGGLES

Chicago Eye Shield Co., Chicago, Ill.

#### MASKS

American Optical Co., Southbridge, Mass.  
Binks Mfg. Co., Chicago, Ill.  
Chicago Eye Shield Co., Chicago, Ill.

#### RESPIRATORS

Chicago Eye Shield Co., Chicago, Ill.

#### SKIN PROTECTIVES

Chesebrough Mfg. Co., New York, N.Y.  
Edwin C. Tyson, Flora Dale, Pa.  
Valvoline Oil Co., Cincinnati, Ohio

AMERICAN FRUIT GROWER

## Sprayer Equipment

### BEARINGS

Hyatt Bearings Division, General Motors, Corp., Harrison, N.J.  
New Departure Mfg. Co., Detroit, Mich.  
SKF Industries, Inc., Philadelphia, Pa.  
Timken Roller Bearing Co., Canton, Ohio

### ENGINES

John Bean Mfg. Co., Lansing, Mich.  
Briggs & Stratton Corp., Milwaukee, Wis.  
J. I. Case Co., Racine, Wis.  
Caterpillar Tractor Co., Peoria, Ill.  
John Deere, Moline, Ill.  
Fairbanks, Morse & Co., Chicago, Ill.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
Frick Company, Waynesboro, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Hardie Mfg. Co., Hudson, Mich.  
Hercules Motors Corp., Canton, Ohio  
International Harvester Co., Chicago, Ill.  
Le Roi Co., Milwaukee, Wis.  
Minneapolis-Moline Power Implement Co., Minneapolis, Minn.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Novo Engine Co., Lansing, Mich.  
Palmer Bros., Cos Cob, Conn.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.  
Waukesha Motor Co., Waukesha, Wis.  
Wisconsin Motor Corp., Milwaukee, Wis.  
Witte Engine Works, Inc., Kansas City, Mo.

### MOTORS, GASOLINE

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Briggs & Stratton Corp., Milwaukee, Wis.  
Cushman Motor Works, Lincoln, Nebr.  
Fairbanks, Morse & Co., Chicago, Ill.  
Hercules Motor Corp., Canton, Ohio

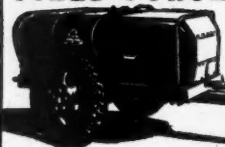
### TANKS AND TANK FILLERS

John Bacon Inc., Gasport, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
Frick Company, Waynesboro, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Hardie Mfg. Co., Hudson, Mich.  
Kalamazoo Tank & Silo Co., Kalamazoo, Mich.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Universal Power Sprayer Co., Inc., Plymouth, Mich.

### TIRES, PNEUMATIC

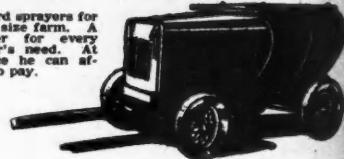
Firestone Tire & Rubber Co., Akron, Ohio  
General Tire & Rubber Co., Akron, Ohio  
B. F. Goodrich Co., Akron, Ohio  
Goodyear Tire & Rubber Co., Inc., Akron, Ohio  
Kelly-Springfield Tire Co., Cumberland, Md.  
Seiberling Rubber Co., Akron, Ohio  
United States Rubber Co., Detroit, Mich.

## FIELD FORCE SPRAYERS



Guaranteed to Deliver Uniform High Pressure  
Tractor Power Take-Off  
Sprayers 5 Gal. - 35 Gal. per Minute.  
Specifications Meeting State Agricultural Requirements.

Orchard sprayers for every size farm. A sprayer for every farmer's need. At a price he can afford to pay.



Write for Catalogue Today.

**FIELD FORCE MFG. CO.**

Makers of Sprayers for 59 Years

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Pottstown, Pa.

**SPRAYERS!** Here is the Only Way to Maintain CLEAR VISION...

**E-Z "C"**

Face Protector with Renewable Tear-On Visor!

★ Don't let lime, lead and sulphur spray interfere with better crop coverage. Just pull out and tear off a strip of transparent ribbon for continuous CLEAR VISION!

Order from your seedman or hardware dealer—or write direct. \$3 complete.  
**CHICAGO EYE SHIELD CO.**, 2307 Warren Boulevard, Chicago, Illinois  
See "Respirators" Directory Section.



JUNE, 1942



# INSECT AND DISEASE CONTROL

## Sprayers

### HAND

John Bacon Inc., Gasport, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
Campbell-Hausfeld Co., Harrison, Ohio  
Dobbins Mfg. Co., Elkhart, Ind.  
Eureka Mower Co., Utica, N.Y.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Hardie Mfg. Co., Hudson, Mich.  
H. D. Hudson Mfg. Co., Chicago, Ill.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
D. H. Smith & Co., Utica, N.Y.  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.

### POWER

John Bacon Inc., Gasport, N.Y.  
John Bean Mfg. Co., Lansing, Mich.  
Dobbins Mfg. Co., Elkhart, Ind.  
Eureka Mower Co., Utica, N.Y.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Hardie Mfg. Co., Hudson, Mich.  
Love Tractor, Inc., Eau Claire, Mich.  
McClain Brothers Co., Canton, Ohio  
F. E. Myers & Bro. Co., Ashland, Ohio  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Universal Power Sprayer Co., Plymouth, Mich.

### STATIONARY

John Bean Mfg. Co., Lansing, Mich.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Hardie Mfg. Co., Hudson, Mich.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Universal Power Sprayer Co., Plymouth, Mich.

### TRACTION

John Bean Mfg. Co., Lansing, Mich.  
A. B. Farquhar Co., Ltd., York, Pa.  
Field Force Mfg. Co., Pottstown, Pa.  
"Friend" Mfg. Co., Gasport, N.Y.  
Hardie Mfg. Co., Hudson, Mich.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Universal Power Sprayer Co., Plymouth, Mich.

## Save yourself TIME and REPAIR EXPENSE

Buy the equipment that does your work with Least Trouble—designed for Simplicity and Dependability.

### SPRAYERS

The "Friend" pump has only  $\frac{1}{2}$  to  $\frac{1}{3}$  as many moving parts as others. Has no rival for Efficiency. All chassis styles.

### DUSTERS

Low-cost utility dusters, and heavy-duty outfits with Unifed Regulating-Agitator. For orchard and row crops.

### SIZERS

Commercial sizing equipment for apples, peaches and pears—also growers' models. Unequalled for gentle handling of fruit.

### CLEANERS

"Friend" Brush-Cleaners are doing the work of machines costing twice as much. Growers' and commercial models.

Write for Catalog showing the equipment you need. "FRIEND" MFG. CO.

Gasport, N. Y.

Easiest to Maintain in Working Order--

**"FRIEND"**

## Truck Chains

American Chain Div., American Chain & Cable Co., Bridgeport, Conn.  
Columbus-McKinnon Chain Co., Tonawanda, N.Y.

## Trucks, Motor

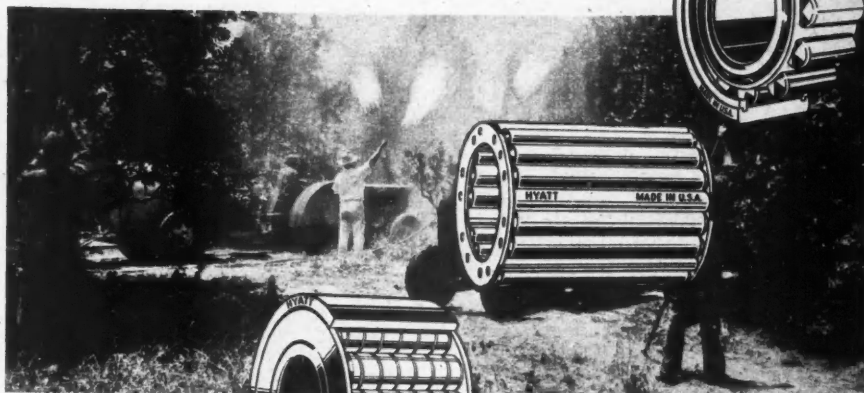
Chevrolet Motor Div., General Motors Sales Corp., Detroit, Mich.  
Chrysler Corp., Dodge Div., Detroit, Mich.  
Chrysler Corp., Plymouth Div., Detroit, Mich.  
Dodge Div., Chrysler Corp., Detroit, Mich.  
Ford Motor Co., Dearborn, Mich.  
General Motors Sales Corp., Chevrolet Motor Div., Detroit, Mich.  
General Motors Truck & Coach Div., Yellow Truck & Coach Mfg. Co., Pontiac, Mich.  
Hudson Motor Car Co., Detroit, Mich.  
International Harvester Co., Chicago, Ill.  
Plymouth Div., Chrysler Corp., Detroit, Mich.

Studebaker Corp., South Bend, Ind.  
Willys-Overland Co., Toledo, Ohio

## Valves and Fittings

W. R. Ames Co., San Francisco, Calif.  
E. C. Atkins & Co., Indianapolis, Ind.  
Central Brass Mfg. Co., Cleveland, Ohio  
Chicago Metal Mfg. Co., Chicago, Ill.  
Crane Co., Chicago, Ill.  
Dempster Mill Mfg. Co., Beatrice, Nebr.  
Frick Company, Waynesboro, Pa.  
B. F. Goodrich Co., Akron, Ohio  
March Automatic Irrigation Co., Muskegon, Mich.  
F. E. Myers & Bro. Co., Ashland, Ohio  
Northwest Irrigation Co., Antigo, Wis.  
Quaker Rubber Corp., Philadelphia, Pa.  
Rife Hydraulic Engine Mfg. Co., New York, N.Y.  
Skinner Irrigation Co., Troy, Ohio  
Sprayer Supply Mfg. Co., Grand Rapids, Mich.  
Edwin C. Tyson, Flora Dale, Pa.

# ORCHARD MACHINERY RUNS SMOOTHER



Opposite: The Hyatt Wound Roller Type Bearing with Solid Races.

Top: Hyatt Hy-Load Type Bearing with Solid Rollers and Solid Races. Center: Junior Solid Roller Type.

## ON DEPENDABLE ROLLER BEARINGS

That's why leading builders of power sprayers, dusters, tractors, trucks and other orchard machinery use Hyatt Roller Bearings in their equipment. Smoother, efficient, care-free and longer-lived operation are thus made possible for you.

HYATT BEARINGS DIVISION—GENERAL MOTORS CORPORATION  
HARRISON, N. J., CHICAGO, DETROIT, PITTSBURGH, SAN FRANCISCO

THE 50TH YEAR OF **HYATT** ROLLER BEARINGS

# Firestone

**TIMELY**  
*Summer*



**IT'S SO EASY**, so thrifty, so convenient to shop at your nearby Firestone Dealer or Firestone Store. There you will find a more complete stock and wider variety of products that give you extra value.

**For the Home** there are paints, enamels and varnishes, hardware, electric fans, washing machines, electrical appliances, ironing boards, table and console radios, phonograph record sets, stepladders, vacuum cleaners, carpet sweepers, brooms,

brush  
mater  
other

For  
there  
overall  
garden  
mower  
hole  
and  
fertilizer

For  
seat  
sidew  
steering  
wig-w  
battery  
brake

## FOR THE HOME



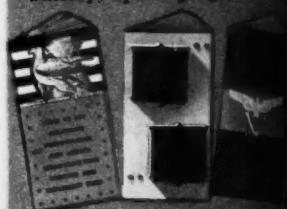
## FOR THE CAR



Give your car the beauty of white side-walls with these scuff-proof, rattle-proof, easy to clean enameled discs.

## REGISTER YOUR CAR AND TRUCK FOR FREE FIRESTONE Extra-Mileage PLAN

Your tires will be examined, inflated and "Safe-Branded" with your initials. Your battery, spark plugs, brakes,



lights, wheels and lubricants will be checked. Register your car and truck at the nearest Firestone Dealer or Firestone Store equipped to give this service. Get the booklets telling how to conserve your tires, car, truck and tractor.

Listen to the Voices of Firestones with Richard Crooks, Margaret Spinks, the Firestone Symphony Orchestra and Alfred Wallenda, Monday evenings, over N. B. C. Red Network



# Values for HOME and CAR for GARDEN and RECREATION

Sprinklin' Sambo turns round, hose whips up and down, sprinkles 50-foot circle. Two types of spray nozzles.

brushes, polishing materials, and many other household needs.

**For Farm and Garden** there are barn paint, overalls, work clothes, garden tools, lawn mowers, shovels, post hole diggers, vegetable and flower seeds, fertilizer, garden hose.

**For the Car** there are seat covers, white sidewall wheel discs, steering wheel knobs, wig-wag stop signals, batteries, spark plugs, brake lining, radiator

hose, fan belts, radios, grille guards, driving lights, horns, car cleaning supplies and many other products that help you get longer service from your car.

**For Recreation and Sports** there are fishing tackle, portable radios, luggage, croquet sets, sports jackets, tennis racquets, baseball equipment, etc.

Save work, save time, save money — see the hundreds of values at your Firestone Dealer or Firestone Store today.

## FOR FARM AND GARDEN

## FOR RECREATION

"WHEN YOU GET A TIRE RATIONING CERTIFICATE FOR YOUR TRACTOR, TRUCK OR CAR BE SURE TO GET THE EXTRA VALUES PROVIDED ONLY BY

### Firestone TIRES"

Says Mr. Extra Traction

Firestone  
Ground Grip  
Tires for Tractors

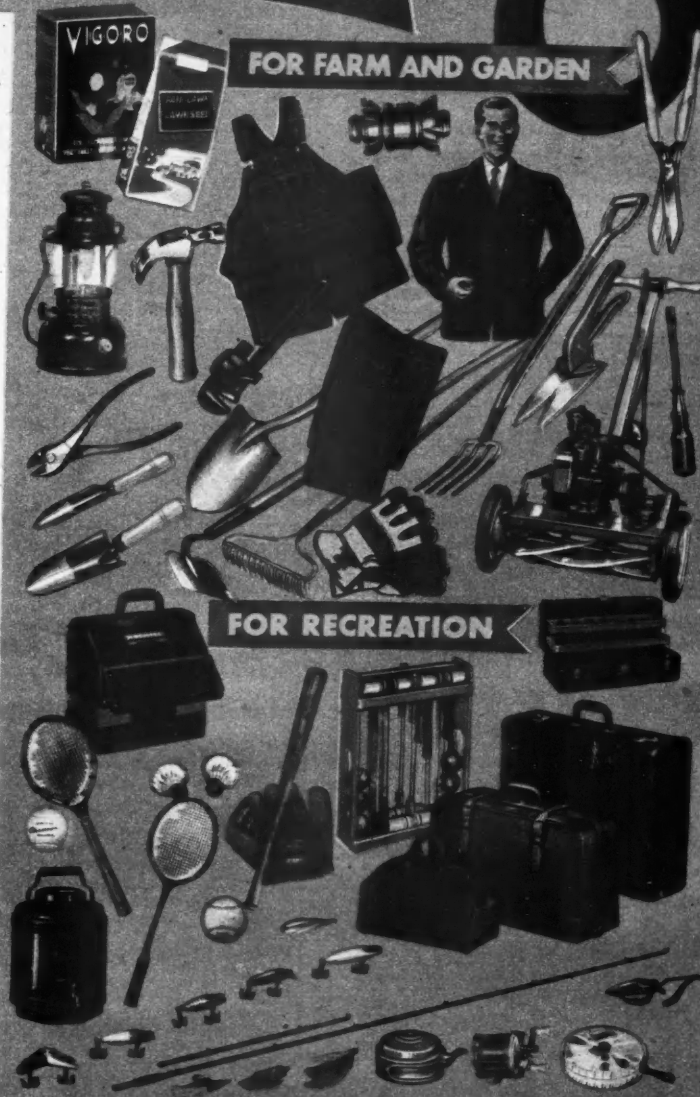
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Transport Tires  
for Trucks

Firestone  
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Dose chimneys  
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Dry cleaner  
Electrical supplies  
Flashlights, batteries and bulbs  
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Grills  
Ironing boards, pads and covers  
Irons, electric  
Light bulbs  
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Painting accessories  
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Radios and phonorecords  
Ranges, gas and electric  
Shavers, electric  
Shops

Ladders  
Toasters  
Tools, household  
Vacuum cleaners  
Waffle makers  
Washing machines

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Fertilizer  
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Lawn mowers  
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Work clothes  
Work gloves

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Cleaning materials  
Cushions  
Driving gloves  
Driving lights  
Fan belts  
Grille guards  
Horns  
Oil filter cartridges  
Radios

Radiator hose  
Seat covers  
Spark plugs  
Steering wheel knobs  
Sun glasses  
Tires and tubes  
Tire repair materials  
Tools  
White sidewall wheel discs  
Wig-wag stop signals  
Windshield wiper blades

**RECREATION SUPPLIES**  
Badminton sets  
Baseballs, bats and gloves  
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Luggage, complete line  
Men's sport coats  
Picnic jugs  
Roller skates  
Table tennis sets  
Tennis racquets

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Scooters  
Velocipedes  
Wagons

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with  
**Corona Products!**

**1 KILL DESTRUCTIVE INFESTATION**  
in your apple orchards with Corona Dry Arsenate of Lead. This double-action poison will rid trees of curculio, codling moth, bud moth and other pests.

**2 SURE DEATH TO POTATO BUGS**  
is what successful farmers everywhere say about Corona Calcium Arsenate. This finely ground powder may be used just as it comes in the package—either as a wet spray or a dry dust.

**3 FOR TREE WOUNDS** use Corona Tree Wound Dressing. This time-tested product retains its protective coating longer and heals quicker than ordinary preparations. Will not injure and drive back the living tissue.

#### OTHER CORONA PRODUCTS

CORONA MERKO - - - for treating seed corn  
OATS DUST - - - for treating seed oats  
COPPERCARD - - - for treating wheat seed  
50% PLUS - - - for treating wheat seed  
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**Corona**  
**CHEMICALS**

DIVISION OF  
PITTSBURGH  
PLATE GLASS COMPANY  
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## ELGETOL

**A NON-CAUSTIC  
DINITRO DORMANT SPRAY**

STANDARD AGRICULTURAL  
CHEMICALS, Inc.  
HOBOKEN, N. J. SACRAMENTO, CAL.

**SPRAY with**  
**26% COPPER FUNGICIDE**

TENNESSEE CORPORATION

An insoluble copper fungicide. A most effective spray for apples and cherries. Absolutely safe. Controls diseases without injury.

**Tennessee Corporation**

ATLANTA, GEORGIA  
LOCKLAND, OHIO

## INSECT AND DISEASE CONTROL

### SPRAYING MATERIALS

#### Arsenicals

##### CALCIUM ARSENATE

American Agricultural Chemical Co., New York, N.Y.  
California Spray-Chemical Corp., Richmond, Calif.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.  
Dow Chemical Co., Midland, Mich.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
Mechling Bros. Chemical Co., Camden, N.J.  
Micronizer Processing Co., Inc., Moorestown, N.J.

Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

##### LEAD ARSENATE

American Agricultural Chemical Co., New York, N.Y.  
California Spray-Chemical Corp., Richmond, Calif.

Chipman Chemical Co., Inc., Bound Brook, N.J.  
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.  
Dow Chemical Co., Midland, Mich.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
Mechling Bros. Chemical Co., Camden, N.J.  
Micronizer Processing Co., Inc., Moorestown, N.J.

Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

##### MAGNESIUM ARSENATE

Dow Chemical Co., Midland, Mich.  
Mechling Bros. Chemical Co., Camden, N.J.

##### PARIS GREEN

Ansbacher-Siegle Corp., Brooklyn, N.Y.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
Dow Chemical Co., Midland, Mich.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
Mechling Bros. Chemical Co., Camden, N.J.  
Sherwin-Williams Co., Cleveland, Ohio  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

##### ZINC ARSENITE

California Spray-Chemical Corp., Richmond, Calif.  
General Chemical Co., New York, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio

#### Biennial Bearing Sprays

Reilly Tar & Chemical Corp., Indianapolis, Ind.

#### Copper Compounds

##### BORDEAUX MIXTURE

American Agricultural Chem. Co., New York, N.Y.  
California Spray-Chemical Corp., Richmond, Calif.

Chipman Chemical Co., Inc., Bound Brook, N.J.  
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.  
Dow Chemical Co., Midland, Mich.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
General Chemical Co., New York, N.Y.  
Interstate Chemical Mfg. Co., Reading, Pa.  
Mechling Bros. Chemical Co., Camden, N.J.  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Phelps Dodge Refining Corp., New York, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
Tennessee Corp., Atlanta, Ga.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

#### Insoluble

(Also known as Fixed Coppers)

American Cyanamid & Chemical Corp., New York, N.Y.  
J. T. Baker Chemical Co., Phillipsburg, N.J.  
California Spray-Chemical Corp., Richmond, Calif.

Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Wilmington, Del.

Harshaw Chemical Co., Cleveland, Ohio  
Merck & Co., Inc., Rahway, N.J.  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Permutit Co., New York, N.Y.  
Rohm & Haas Co., Philadelphia, Pa.  
Tennessee Corp., Atlanta, Ga.

#### Soluble

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American Cyanamid & Chemical Corp., New York, N.Y.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
General Chemical Co., New York, N.Y.  
Harshaw Chemical Co., Cleveland, Ohio  
Mechling Bros. Chemical Co., Camden, N.J.  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Phelps Dodge Refining Corp., New York, N.Y.  
Sherwin-Williams Co., Cleveland, Ohio  
Stauffer Chemical Co., New York, N.Y.  
Tennessee Corp., Atlanta, Ga.  
Woolfolk Chemical Wks., Ltd., Ft. Valley, Ga.

#### Cryolite

Aluminum Ore Co., Pittsburgh, Pa.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
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**THE NATURAL  
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**Kryocide** may be applied either by dusting or spraying. It has proved an effective control for many insects. Write now for descriptive literature on Kryocide.



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PHILADELPHIA, PA. • TACOMA, WASH.

## C-O-C-S Fungicide

(Copper Oxychloride Sulphate)

The active ingredient in C-O-C-S Sprays and Dusts is a complex, relatively insoluble and neutral copper compound. It combines the fungicidal efficiency of the Basic Copper Chlorides with the safety of Basic Sulphates. Since it is practically neutral in reaction, it may be safely combined with Rotenone, Pyrethrum, Lead Arsenate and other insecticides. It is a blue powder having an extremely fine particle size. It gives excellent coverage, adheres to the plants and, because of this, lower concentrations may be used thus reducing the cost of protective applications.

Write for literature.

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Cleveland, Ohio

#### Distributors

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CHEMICAL CO.**

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## INSECT AND DISEASE CONTROL

### Dinitro Compounds

Chipman Chemical Co., Inc., Bound Brook, N.J.  
Dow Chemical Co., Midland, Mich.  
General Chemical Co., New York, N.Y.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Standard Agricultural Chemicals, Inc., Hoboken, N.J.

### Ethylene Dichloride

Dow Chemical Co., Midland, Mich.  
Fred Durand, Woodbury, Ga.  
General Chemical Co., New York, N.Y.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Woolfolk Chemical Wks. Ltd., Ft. Valley, Ga.

### Fixed Nicotine

E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Tobacco By-Products & Chemical Corp., Louisville, Ky.



TOBACCO BY-PRODUCTS & CHEMICAL CORP.  
INCORPORATED • LOUISVILLE, KENTUCKY

### Fluorine Compounds

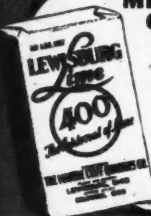
Aluminum Ore Co., Pittsburgh, Pa.  
American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.  
Chipman Chemical Co., Inc., Bound Brook, N.J.  
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.  
Stauffer Chemical Co., New York, N.Y.

### Lime

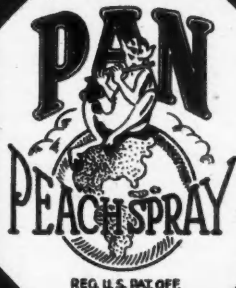
American Lime & Stone Co., Bellefonte, Pa.  
General Chemical Co., New York, N.Y.  
Gibsonburg Lime Products Co., Gibsonburg, Ohio

**LEWISBURG**  
*Aristocrat 400*  
SPRAYING AND DUSTING LIME

### MIXES EASIER COVERS BETTER



99.57% pure Calcium Hydroxide. 99.5% guaranteed to pass through 400 mesh screen. Stays in suspension longer. Covers more thoroughly. Write for prices.  
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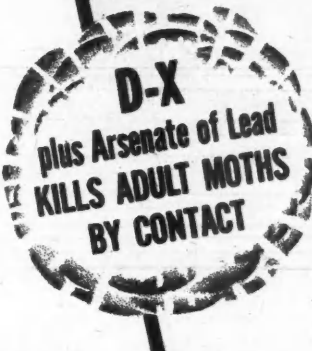
## DI-CHLOR-MULSION

Kills peach tree-borers.

Write for catalog and pamphlets giving full information about these superior products.

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# WIN THE ALL-OUT WAR AGAINST CODLING MOTH



Put an end to half-way measures—and half-way results—in controlling codling moth. Get maximum kill—real control—the D-X way. D-X impregnates arsenate of lead with pyrethrum and rotenone staging a three-way attack: (1) it kills live moths by contact; (2) it prevents many moths from mating and laying eggs; (3) it coats fruit and foliage with a more powerful poison which kills the young larvae before they enter the fruit. D-X is your most effective weapon against codling moth—proved by results in the most heavily infested areas. Use 1 or 1½ pints of D-X with arsenate of lead in the cover sprays. D-X is also an economical spray for aphids, leaf hoppers, and many other insects. See your dealer now, or write for special codling moth folder.

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Scioto Lime & Stone Co., Delaware, Ohio  
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E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
James Good, Inc., Philadelphia, Pa.  
Kay-Fries Chemicals, Inc., New York, N.Y.  
Niagara Sprayer & Chem. Co., Middleport, N.Y.  
Nico-Dust Co., Los Angeles, Calif.  
Nicotine Production Corp., Clarksville, Tenn.  
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## SUPERSPRAY LIME

for dusting and spraying

99.5% minus 325 mesh

Will not cut nozzles

Has good sticking qualities

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## NICHOLS

TRIANGLE BRAND  
ORIGINAL "INSTANT"

Bordeaux mixtures which effectively control fungous diseases depend on the elimination of guesswork and haphazard methods of determining the amount of Copper Sulfate in the spray mixture. Nichols Triangle Brand "Instant" Copper Sulfate gives you these 10 advantages:

1. **ACCURATE CONTROL** . . . You know exactly how much copper sulfate is in your mixture.
2. **GREATER SAFETY** . . . Control of mixture means increased safety.
3. **BETTER MIXTURES** . . . Dissolves instantly and completely.
4. **ECONOMY** . . . No waste, no sediment, no undissolved crystals. YOU USE IT ALL!
5. **EFFICIENCY** . . . 99% pure, 100% efficient.
6. **FASTER OPERATIONS** . . . Saves time, labor . . . mixes directly in the spray tank. Requires no agitation.
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8. **KNOWN QUALITY** . . . Standard for 50 years, it is the oldest and best known brand. Modern manufacturing methods assure never failing high quality in every package.
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10. **PRODUCED IN 3 LARGE PLANTS** . . . Your dealer can always supply you because of three strategically located plants.

ASK YOUR DEALER for Nichols Triangle Brand "Instant" Copper Sulfate today. He also carries LARGE AND SMALL CRYSTAL and SUPER-FINE NICHOLS SULFATE for STANDARD BORDEAUX, and MONOHYDRATED for copper lime dusts.

# INSECT AND DISEASE CONTROL

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**Summer Oils, Dormant Oils, Tar Emulsions**  
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**Archer-Daniels-Midland Co.**, Minneapolis, Minn.  
**California Spray-Chemical Corp.**, Richmond, Calif.  
**Chipman Chemical Co., Inc.**, Bound Brook, N.J.  
**Dow Chemical Co.**, Midland, Mich.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**E. I. du Pont de Nemours & Co., Inc.**, R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
**General Chemical Co.**, New York, N.Y.  
**James Good, Inc.**, Philadelphia, Pa.  
**Gulf Refining Co.**, Pittsburgh, Pa.  
**Interstate Chemical Mfg. Co.**, Reading, Pa.  
**Mechling Bros. Chemical Co.**, Camden, N.J.  
**Miller Chemical & Fertilizer Corp.**, Baltimore, Md.  
**Niagara Sprayer & Chemical Co., Inc.**, Middleport, N.Y.  
**B. G. Pratt Co.**, New York, N.Y.  
**Schaeffer Bros. & Powell Co.**, St. Louis, Mo.  
**Shell Oil Co., Inc.**, New York, N.Y.  
**Sherwin-Williams Co.**, Cleveland, Ohio  
**Silmo Chemical Co., Inc.**, Vineland, N.J.  
**Socony-Vacuum Oil Co.**, New York, N.Y.  
**Standard Agricultural Chemicals, Inc.**, Hoboken, N.J.  
**Standard Oil Co. of Indiana**, Chicago, Ill.  
**Sun Oil Co.**, Philadelphia, Pa.  
**Woolfolk Chemical Wks., Ltd.**, Ft. Valley, Ga.

## Organic Compounds

**General Chemical Co.**, New York, N.Y.

## Paradichlorobenzene

**Dow Chemical Co.**, Midland, Mich.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**General Chemical Co.**, New York, N.Y.  
**James Good, Inc.**, Philadelphia, Pa.  
**Hooker Electrochemical Co.**, Niagara Falls, N.Y.  
**Interstate Chemical Mfg. Co.**, Reading, Pa.  
**Mechling Bros. Chemical Co.**, Camden, N.J.  
**Merck & Co., Inc.**, Rahway, N.J.  
**Miller Chemical & Fertilizer Corp.**, Baltimore, Md.  
**Monsanto Chemical Co.**, St. Louis, Mo.  
**Niagara Sprayer & Chem. Co., Inc.**, Middleport, N.Y.  
**Solvay Sales Corp.**, New York, N.Y.  
**Woolfolk Chemical Wks., Ltd.**, Ft. Valley, Ga.

## A Proven KILLER OF PEACH TREE BORER!

Para-dichlorobenzene has long been recommended by the U. S. Dept. of Agriculture and leading fruit growers as a proven killer of the peach tree borer. It destroys the borer's larvae without harm to the tree... is easy to apply... requires no special equipment... no mixing! Write immediately for complete information on

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**PARA-DICHLOROBENZENE**  
**SOLVAY SALES CORPORATION**  
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**49 RECTOR ST. NEW YORK, N.Y.**

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**No. 3 Soft Potash:** wetting, spreading and emulsifying agent.

**No. 9 Rosin Soap:** "sticker" for Bordeaux and other chemical sprays on grapes, cranberries, asparagus, tomatoes, etc.

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**General Chemical Co.**, New York, N.Y.  
**Kay-Fries Chemicals, Inc.**, New York, N.Y.  
**McCormick & Co., Inc.**, Baltimore, Md.  
**McLaughlin Gormley King**, Minneapolis, Minn.  
**Mechling Bros. Chemical Co.**, Camden, N.J.  
**S. B. Penick & Co.**, New York, N.Y.  
**B. G. Pratt Co.**, New York, N.Y.  
**Standard Oil Co. of Indiana**, Chicago, Ill.

## Rotenone Products

**Agicide Laboratories, Inc.**, Milwaukee, Wis.  
**Agkem, Inc.**, Quincy, Ill.  
**Ansbacher-Siegle Corp.**, Brooklyn, N.Y.  
**Chipman Chemical Co., Inc.**, Bound Brook, N.J.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**General Chemical Co.**, New York, N.Y.  
**McCormick & Co., Inc.**, Baltimore, Md.  
**McLaughlin Gormley King**, Minneapolis, Minn.  
**Mechling Bros. Chemical Co.**, Camden, N.J.  
**Miller Chem. & Fertilizer Corp.**, Baltimore, Md.  
**Niagara Sprayer & Chemical Co., Inc.**, Middleport, N.Y.  
**S. B. Penick & Co.**, New York, N.Y.  
**Stauffer Chemical Co.**, New York, N.Y.  
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## Nopco Potash Fish Oil Soap

A product that is and will be available. Will help you obtain increased effectiveness of spray materials, better control of insects and diseases, uniform coverage. Investigate the many advantages. Booklet on request.

Dealers—Write for proposition—

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**National Oil Products Company**  
**Harrison, New Jersey**  
 Boston, Chicago, Cedarhurst, Ga., Los Angeles

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**Ansbacher-Siegle Corp.**, Brooklyn, N.Y.  
**Archer-Daniels-Midland Co.**, Minneapolis, Minn.  
**California Spray-Chemical Corp.**, Richmond, Calif.  
**Central Soya Co.**, Port Wayne, Ind.  
**Colloidal Products Corp.**, San Francisco, Calif.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**General Chemical Co.**, New York, N.Y.  
**Glidden Co.**, Soya Products Div., Chicago, Ill.  
**James Good, Inc.**, Philadelphia, Pa.  
**Interstate Chemical Mfg. Co.**, Reading, Pa.  
**Kay-Fries Chemicals, Inc.**, New York, N.Y.  
**Mechling Bros. Chemical Co.**, Camden, N.J.  
**National Oil Products, Harrison, N.J.**  
**B. G. Pratt Co.**, New York, N.Y.  
**Röhm & Haas Co.**, Philadelphia, Pa.  
**Sherwin-Williams Co.**, Cleveland, Ohio  
**Silmo Chemical Co.**, Vineland, N.J.  
**Standard Agricultural Chemicals, Inc.**, Hoboken, N.J.  
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## PENETROL

A STICKER AND SPREADER for—The Arsenates, The Sulphurs, Bordeaux Mixture and Ground Derris.  
 AN ACTIVATOR and WETTER for—Nicotine Sulphate. We can also supply NICOTROL, a complete Nicotine Spray carrying its own spreader.

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**Chipman Chemical Co., Inc.**, Bound Brook, N.J.  
**Corona Chemical Div. of Pittsburgh Plate Glass Co.**, Milwaukee, Wis.  
**Dow Chemical Co.**, Midland, Mich.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**General Chemical Co.**, New York, N.Y.  
**Interstate Chemical Mfg. Co.**, Reading, Pa.  
**Mechling Bros. Chemical Co.**, Camden, N.J.  
**Niagara Sprayer & Chemical Co., Inc.**, Middleport, N.Y.  
**Sherwin-Williams Co.**, Cleveland, Ohio  
**AMERICAN FRUIT GROWER**

## LIQUID LIME SULPHUR

**Ansbacher-Siegle Corp.**, Brooklyn, N.Y.  
**California Spray-Chemical Corp.**, Richmond, Calif.  
**Dow Chemical Co.**, Midland, Mich.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**E. I. du Pont de Nemours & Co., Inc.**, R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
**General Chemical Co.**, New York, N.Y.  
**Interstate Chemical Mfg. Co.**, Reading, Pa.  
**Miller Chem. & Fertilizer Corp.**, Baltimore, Md.  
**Niagara Sprayer & Chem. Co.**, Middleport, N.Y.  
**Sherwin-Williams Co.**, Cleveland, Ohio  
**Woolfolk Chemical Wks., Ltd.**, Ft. Valley, Ga.

## WETTABLE SULPHUR

**American Cyanamid & Chemical Corp.**, Insecticide Dept., New York, N.Y.  
**Calcium Sulphide Corp.**, Damascus, Va.  
**California Spray-Chemical Corp.**, Richmond, Calif.  
**Camden Coke Plant**, Camden, N.J.  
**Chipman Chemical Co., Inc.**, Bound Brook, N.J.  
**Dow Chemical Co.**, Midland, Mich.  
**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**E. I. du Pont de Nemours & Co., Inc.**, R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.  
**General Chemical Co.**, New York, N.Y.  
**Koppers Products Co.**, Pittsburgh, Pa.  
**Micronizer Processing Co., Inc.**, Moorestown, N.J.  
**Miller Chem. & Fertilizer Corp.**, Baltimore, Md.  
**National Sulphur Co., Inc.**, New York, N.Y.  
**Niagara Sprayer & Chemical Co., Inc.**, Middleport, N.Y.  
**Sherwin-Williams Co.**, Cleveland, Ohio  
**Stauffer Chemical Co.**, New York, N.Y.  
**Woolfolk Chemical Wks., Ltd.**, Ft. Valley, Ga.

## Zinc Sulphate

**E. I. du Pont de Nemours & Co., Inc.**, Grasselli Chemicals Dept., Wilmington, Del.  
**Glidden Co.**, Cleveland, Ohio  
**Sherwin-Williams Co.**, Cleveland, Ohio  
**Tennessee Corp.**, Atlanta, Ga.

## FENCING AND TRELLISES


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**Iwan Bros.**, South Bend, Ind.  
**Kitselman Bros.**, Muncie, Ind.

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**Iwan Bros.**, South Bend, Ind.  
**Kitselman Bros.**, Muncie, Ind.

### Gates

**American Steel & Wire Co.**, Cleveland, Ohio  
**Anchor Post Fence Co.**, Baltimore, Md.  
**Brown Fence & Wire Co.**, Cleveland, Ohio  
**Cyclone Fence Co.**, Waukegan, Ill.  
**Interlocking Fence Co.**, Morton, Ill.  
**Kitselman Bros.**, Muncie, Ind.  
**Wickwire Spencer Steel Co.**, New York, N.Y.

### Posts

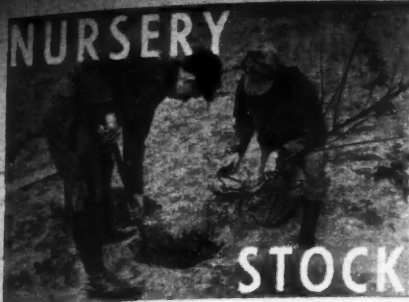
**Brown Fence & Wire Co.**, Cleveland, Ohio  
**Calumet Steel Co.**, Chicago, Ill.  
**Interlocking Fence Co.**, Morton, Ill.  
**Kitselman Bros.**, Muncie, Ind.

### Wire

**American Steel & Wire Co.**, Cleveland, Ohio  
**Bethlehem Steel Co.**, Bethlehem, Pa.  
**Brown Fence & Wire Co.**, Cleveland, Ohio  
**Continental Steel Corp.**, Kokomo, Ind.  
**Interlocking Fence Co.**, Morton, Ill.  
**Kitselman Bros.**, Muncie, Ind.  
**Pittsburgh Steel Co.**, Pittsburgh, Pa.  
**Republic Steel Corp.**, Chicago, Ill.  
**Wheeling Corrugating Co.**, Wheeling, W. Va.  
**Wickwire Spencer Steel Co.**, New York, N.Y.

JUNE, 1943





## Fruit Trees

Ackerman Nursery, Bridgman, Mich.  
Allen's Nurseries & Seed House, Geneva, Ohio  
Andrews Nursery Co., Faribault, Minn.  
Armstrong Nurseries, Ontario, Calif.  
O. A. D. Baldwin Nursery, Bridgman, Mich.  
Benton County Nursery Co., Rogers, Ark.  
W. A. Bents Nurseries, Cresco, Iowa  
Bountiful Ridge Nurseries, Princess Anne, Md.  
Bradley Brothers, Carbondale, Ill.  
Bridgman Nursery Co., Bridgman, Mich.  
Buntings' Nurseries, Inc., Selbyville, Del.  
C. R. Burr & Co., Manchester, Conn.  
California Nursery Co., Niles, Calif.  
Call's Nurseries, Perry, Ohio  
Champion Nurseries, Perry, Ohio  
Chase Brothers Co., Geneva, N.Y.  
Chattanooga Nurseries, Chattanooga, Tenn.  
Cole Nursery Co., Painesville, Ohio  
Columbia & Okanogan Nursery Co., Wenatchee, Wash.

Condon Bros. Seedsmen, Rockford, Ill.  
Daniels Nursery, Inc., Long Lake, Minn.  
Emlong's Nursery, Stevensville, Mich.  
Grand Island Nurseries, Eustis, Fla.  
Greening Nursery Co., Monroe, Mich.  
Carl A. Hansen Nursery, Brookings, S.D.  
Harrison's Nurseries, Berlin, Md.  
Hill Top Orchard & Nurseries, Hartford, Mich.  
I. E. Igenfrits' Sons Co., Monroe, Mich.  
E. W. Jones Nursery Co., Woodlawn, Va.  
J. F. Jones Nurseries, Lancaster, Pa.  
R. M. Kellogg Co., Three Rivers, Mich.  
Kelly Bros. Nurseries, Dansville, N.Y.  
Kridler Nurseries, Inc., Middlebury, Ind.  
Lake's Shenandoah Nurseries, Shenandoah, Ia.  
Maloney Bros. Nursery Co., Dansville, N.Y.  
Markham's Nursery, Xenia, Ill.  
Thomas B. Meehan Co., Dresher, Pa.  
Milton Nursery Co., Milton, Ore.  
George A. Morse, Williamson, N.Y.  
Mount Arbor Nurseries, Shenandoah, Iowa  
New Jersey Peach Council, Princeton, N.J.  
Nut Tree Nurseries, Downingtown, Pa.  
W. N. Scarff's Sons, New Carlisle, Ohio  
South Michigan Nursery, New Buffalo, Mich.  
F. C. Stahelin & Son, Bridgman, Mich.  
Stark Bro's Nurseries & Orchards Co., Louisiana, Mo.  
Storrs & Harrison, Painesville, Ohio  
E. W. Townsend Sons, Salisbury, Md.  
Vienna Nursery, Vienna, Ill.  
Wathena Nurseries, Wathena, Kans.  
Waynesboro Nurseries, Waynesboro, Va.  
T. B. West & Son, Perry, Ohio  
West Hill Nurseries, Fredonia, N.Y.  
White Rose Seed & Nursery Co., York, Pa.

## Fruit Trees, Dwarf

Kelly Bros. Nurseries, Dansville, N.Y.  
Henry Leuthardt, Port Chester, N.Y.  
Maloney Bros. Nursery Co., Dansville, N.Y.  
W. N. Scarff's Sons, New Carlisle, Ohio  
U. S. Espaller Nursery Co., Inc., Portland, Ore.  
T. B. West & Son, Perry, Ohio

## Rootstock Material

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Robert M. Clark, Mitchellville, Iowa  
Greening Nursery Co., Monroe, Mich.  
House of Gurney, Inc., Yankton, S.D.  
Mount Arbor Nurseries, Shenandoah, Iowa  
Virginia Tree Farms, Woodlawn, Va.  
A. Willis & Co., Ottawa, Kans.

## Small Fruits and Grape Vines

Ackerman Nursery, Bridgman, Mich.  
W. F. Allen Co., Salisbury, Md.  
Allen's Nurseries & Seed House, Geneva, Ohio  
Andrews Nursery Co., Faribault, Minn.  
Anna Strawberry Nursery, Anna, Ill.  
O. A. D. Baldwin Nursery, Bridgman, Mich.  
V. P. Basham, Mount Airy, Ark.  
Benton County Nursery Co., Rogers, Ark.  
W. A. Bents Nurseries, Cresco, Iowa  
Bountiful Ridge Nurseries, Princess Anne, Md.  
Boysenberry Plantation, Lapeer, Mich.  
Fred Braden, Carbondale, Minn.  
Bradley Bros., Carbondale, Ill.  
Buntings' Nurseries, Inc., Selbyville, Del.  
Burr Nurseries, Manchester, Conn.  
California Nursery Co., Niles, Calif.  
Call's Nurseries, Perry, Ohio  
Champion Nurseries, Perry, Ohio  
Chattanooga Nurseries, Chattanooga, Tenn.  
Cole Nursery Co., Painesville, Ohio  
Columbia & Okanogan Nursery Co., Wenatchee, Wash.  
Condon Bros. Seedsmen, Rockford, Ill.  
Daniels Nursery, Inc., Long Lake, Minn.  
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Extra heavy root system grafting method gives "years" head start

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M. H. Hunt & Son, Lansing, Mich.  
G. B. Lewis Co., Watertown, Wis.  
August Lots Co., Boyd, Wis.  
Fred W. Muth Co., Cincinnati, Ohio  
A. I. Root Co., Medina, Ohio  
Stover Apiaries, Mayhew, Miss.

### Package Bees and Queens

Brower Bee Co., Bangor, Ala.  
Central Louisiana Apiaries, Marksville, La.  
Citronelle Bee Co., Inc., Citronelle, Ala.  
Dadant & Sons, Hamilton, Ill.  
Flowers Bee Co., Jessup, Ga.  
W. O. Gibbs Co., Brookfield, Ga.  
Highland Apiaries, West Elkton, Ohio  
Holder Apiaries, Citronelle, Ala.  
Honey Bee Apiaries, Sandwich, Ill.  
Jackson Apiaries, Funston, Ga.  
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G. B. Lewis Co., Watertown, Wis.  
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The Puett Co., Hahira, Ga.  
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St. Romain's Apiaries, Diamond, La.  
Shaata Apiaries, Shaata, Calif.  
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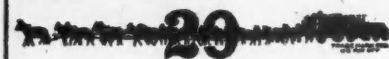
American Lime & Stone Co., Bellefonte, Pa.  
Marble Cliff Quarries Co., Columbus, Ohio  
Ohio Hydrate & Supply Co., Woodville, Ohio  
Scioto Lime & Stone Co., Delaware, Ohio  
United States Gypsum Co., Chicago, Ill.  
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General Chemical Co., New York, N.Y.  
James Good, Inc., Philadelphia, Pa.  
Mallinckrodt Chemical Works, St. Louis, Mo.

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Harshaw Chemical Co., Cleveland, Ohio  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Tennessee Corp., Atlanta, Ga.  
Tennessee Eastman Corp., Kingsport, Tenn.

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Armour Fertilizer Works, Atlanta, Ga.  
Davison Chemical Corp., Baltimore, Md.  
Federal Chemical Co., Louisville, Ky.  
International Minerals & Chem. Corp., Chicago, Ill.

Jean Maclean & Associates, Bridgeton, Ind.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Tennessee Corp., Atlanta, Ga.  
Welmaid Mfg. Co., Chicago, Ill.  
Wilson & Co., Chicago, Ill.  
Woodville Lime Products Co., Toledo, Ohio

#### NITRATE OF POTASH

Battelle & Renwick, New York, N.Y.  
Chilean Nitrate Sales Corp., New York, N.Y.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.

#### NITRATE OF SODA

Armour Fertilizer Works, Atlanta, Ga.  
Barrett Div., Allied Chemical & Dye Corp., New York, N.Y.  
Chilean Nitrate Sales Corp., New York, N.Y.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Smith Agricultural Chemical Co., Columbus, Ohio

### POTASH SALTS

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American Potash Institute, Inc., Washington, D.C.  
Armour Fertilizer Works, Atlanta, Ga.  
International Minerals & Chem. Corp., Chicago, Ill.  
Potash Co. of America, New York, N.Y.  
Smith Agricultural Chemical Co., Columbus, Ohio  
U. S. Potash Co., New York, N.Y.

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Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Smith Agricultural Chemical Co., Columbus, Ohio

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Jean Maclean & Associates, Bridgeton, Ind.  
Merck & Co., Inc., Rahway, N.J.  
Miller Chem. & Fertilizer Corp., Baltimore, Md.  
Niagara Sprayer & Chemical Co., Inc., Middletown, N.Y.  
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Vitamin Institute, Hollywood, Calif.  
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which can be unloaded promptly when it gets there.

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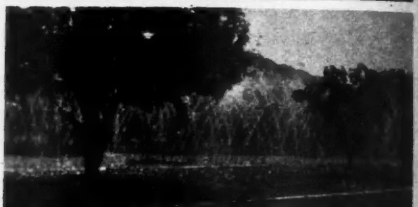
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Oliver Farm Equipment Co., Chicago, Ill.

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Bradley Mfg. Works, Bradley, Ill.  
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J. I. Case Co., Racine, Wis.  
Centaur Tractor Corp., Greenwich, Ohio  
Cleveland Tractor Co., Cleveland, Ohio  
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John Deere, Moline, Ill.  
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New Idea Co., Inc., Coldwater, Ohio  
Ohio Cultivator Co., Bellevue, Ohio  
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International Harvester Co., Chicago, Ill.  
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Frick Company, Waynesboro, Pa.  
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Massey-Harris Co., Racine, Wis.  
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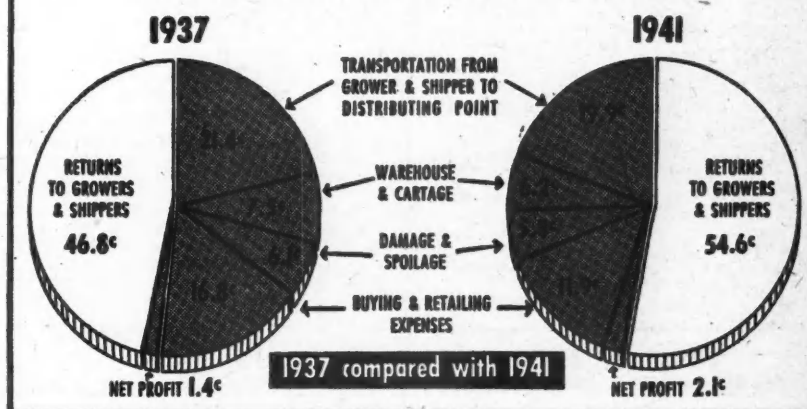
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*New Efficiencies, Narrowing Market Spread,  
Help Offset Rising Wartime Costs*

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## ATLANTIC COMMISSION CO., Inc.

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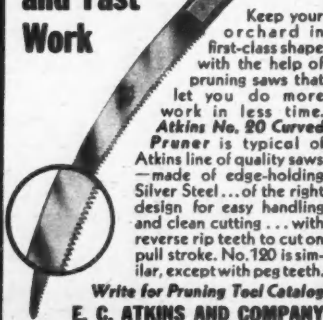
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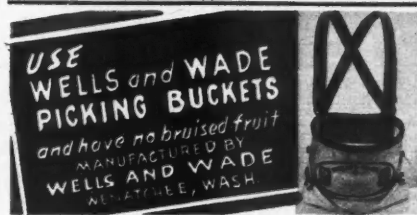
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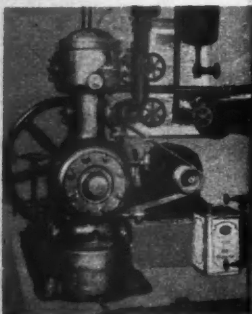
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JUNE, 1942

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### Packing Forms

John Bacon Inc., Gasport, N.Y.  
Rurch Mfg. & Sheet Metal, Lawrence, Mich.  
Continental Paper Products Co., Denver, Colo.  
Frank L. Deane & Son, Benton Harbor, Mich.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Rice, Trew & Rice Co., Inc., Biglerville, Pa.  
The Taylor Grader, Anna, Ill.  
Edwin C. Tyson, Florida Dale, Pa.  
Webster Basket Co., Webster, N.Y.

### Packing Tables

Brogdex Co., Wenatchee, Wash.  
Fruit Machines Co., Portland, Ore.  
Ideal Grader & Nursery Co., Hood River, Ore.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
The Taylor Grader, Anna, Ill.

### Presses, Basket

Aeeme Veneer Package Co., Orchard Park, N.Y.  
Fruit Packing Equipment Co., Swoope, Va.

AMERICAN FRUIT GROWER

### Presses, Box

John Bean Mfg. Co., Lansing, Mich.  
Cutler Mfg. Co., Portland, Ore.  
Parker Machine Works, Riverside, Calif.

### Rings, Sizing

John Bacon Inc., Gasport, N.Y.  
F. A. Read, Inc., Albion, N.Y.  
Salt Lake Stamp Co., Salt Lake City, Utah  
Edwin C. Tyson, Florida Dale, Pa.  
Webster Basket Co., Webster, N.Y.

### Scales

Exact Weight Scale Co., Columbus, Ohio  
Fairbanks, Morse & Co., Chicago, Ill.  
Howe Scale Co., Rutland, Vt.

### Sorters, Berry

The Taylor Grader, Anna, Ill.

### Sorting Tables, Fruit

John Bean Mfg. Co., Lansing, Mich.  
Brogdex Co., Wenatchee, Wash.  
Cutler Mfg. Co., Portland, Ore.  
Fred A. Durand, Woodbury, Ga.  
Fruit Machines Co., Portland, Ore.  
Fruit Packing Equipment Co., Swoope, Va.  
Ideal Grader & Nursery Co., Hood River, Ore.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Parma Water Lifter Co., Parma, Idaho  
The Taylor Grader, Anna, Ill.  
Wayland Machinery Co., Coveseville, Va.

### Sponge Rubber Sheeting

Broadway Rubber Co., Louisville, Ky.  
Faultless Rubber Co., Mansfield, Ohio  
Kent Mfg. Co., Grand Rapids, Mich.  
Sponge Rubber Products Co., Derby, Conn.  
Edwin C. Tyson, Florida Dale, Pa.

### Stands, Facing

Fruit Packing Equipment Co., Swoope, Va.

### Staplers and Stitchers

Aeeme Stapler Co., Camden, N.J.  
Bostitch Sales Co., Greenwich, R.I.  
Cobden Machine Works, Cobden, Ill.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
General Food Package Equipment Corp., Benton Harbor, Mich.  
Markwell Mfg. Co., Inc., New York, N.Y.  
Parrot Speed Fasteners Corp., New York, N.Y.  
Saranac Machine Co., Benton Harbor, Mich.

### Staples

Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Markwell Mfg. Co., Inc., New York, N.Y.  
Edwin C. Tyson, Florida Dale, Pa.

### Turners, Basket

John Bean Mfg. Co., Lansing, Mich.  
Continental Paper Products Co., Denver, Colo.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Fruit Packing Equipment Co., Swoope, Va.  
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.  
Trescott Co., Inc., Fairport, N.Y.  
Edwin C. Tyson, Florida Dale, Pa.

### Washers, Fruit

John Bean Mfg. Co., Lansing, Mich.  
Brogdex Co., Wenatchee, Wash.  
Cutler Mfg. Co., Portland, Ore.  
Ideal Grader & Nursery Co., Hood River, Ore.  
Parma Water Lifter Co., Parma, Idaho  
Edwin C. Tyson, Florida Dale, Pa.  
Wayland Machinery Co., Coveseville, Va.

### Washing Compounds, Fruit

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.  
E. I. du Pont de Nemours & Co., Inc., Grassell Chemicals Dept., Wilmington, Del.  
General Chemical Co., New York, N.Y.  
Los Angeles Soap Co., Los Angeles, Calif.  
Mallinckrodt Chemical Works, St. Louis, Mo.  
Mechling Bros. Chemical Co., Camden, N.J.  
Monsanto Chemical Co., Rubber Service Laboratories Div., Akron, Ohio  
Philadelphia Quartz Co., Philadelphia, Pa.  
Tennessee Eastman Corp., Kingsport, Tenn.

### Wax

Brogdex Co., Pomona, Calif.  
Dow Chemical Co., Midland, Mich.  
Wilbur White Div., Franklin Research Co., Philadelphia, Pa.



# PACKAGES AND PACKAGING

## Caps, Corrugated

John Bacon Inc., Gasport, N.Y.  
Berryville Basket Co., Inc., Berryville, Va.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Hinde & Dauch Paper Co., Sandusky, Ohio  
Rice, Trew & Rice Co., Inc., Biglerville, Pa.  
Simplex Paper Corp., Adrian, Mich.  
Sutherland Paper Co., Kalamazoo, Mich.  
Edwin C. Tyson, Flora Dale, Pa.  
Webster Basket Co., Webster, N.Y.

## Cellophane

E. I. du Pont de Nemours & Co., Inc., "Cellophane" Div., Wilmington, Del.  
Sylvania Industrial Corp., New York, N.Y.

## Containers

### BAGS, CLOTH, OPEN MESH, PAPER

Bemis Bro. Bag Co., St. Louis, Mo.  
Chase Bag Co., Chagrin Falls, Ohio  
Fulton Bag & Cotton Mills, Atlanta, Ga.

### BASKETS, CORRUGATED, FIBERBOARD, PAPERBOARD

American Box Board Co., Grand Rapids, Mich.  
Ashtabula Corrugated Box Co., Ashtabula, Ohio  
Container Corp. of America, Chicago, Ill.  
Arthur A. Erny Co., St. Paul, Minn.  
Fibreboard Products Inc., San Francisco, Calif.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Robert Gair Co., Inc., New York, N.Y.  
Gaylord Container Corp., Atlanta, Ga.  
Hankins Container Co., Cleveland, Ohio  
Kieckhefer Container Co., Delair, N.J.  
Ohio Boxboard Co., Rittman, Ohio  
Pioneer Paper Stock Co., Chicago, Ill.  
Fred C. Strype, New York, N.Y.  
Edwin C. Tyson, Flora Dale, Pa.

### BASKETS, WOOD

Acme Veneer Package Co., Orchard Park, N.Y.  
John Bacon Inc., Gasport, N.Y.  
Barden & Robeson Corp., Lockport, N.Y.  
Barden & Robeson Corp., Penn Yan, N.Y.  
Burlington Basket Co., Burlington, Iowa  
Cummer-Graham Co., Paris, Texas  
Frank L. Deane & Son, Benton Harbor, Mich.  
Edgerton Mfg. Co., Plymouth, Ind.  
Evansville Basket & Crate Co., Evansville, Ind.  
F. W. Harrison & Son, Painesville, Ohio  
Marietta Fruit Package & Lumber Co., Marietta, Ohio  
Paducah Box & Basket Co., Paducah, Ky.  
Pierce-Williams Co., South Haven, Mich.  
H. L. Rapp & Son, Carpentersville, N.J.  
Ripley Box & Basket Co., Inc., Ripley, Tenn.  
Roberts-Liggett Co., Metropolis, Ill.  
Sodus Basket Co., Sodus, N.Y.  
Walter Verhalen Co., Dallas, Texas  
Webster Basket Co., Webster, N.Y.

### BOX SHOOKS

Acushnet Saw Mills Co., New Bedford, Mass.  
Chicago Mill & Lumber Co., Chicago, Ill.  
Cummer-Graham Co., Paris, Tex.  
General Box Co., Chicago, Ill.  
Green Co., Inc., Bellows Falls, Vt.  
Holston Box & Lumber Co., Knoxville, Tenn.  
Marinette & Menominee Box Co., Marinette, Wis.  
Maxwell Brothers, Inc., Chicago, Ill.  
Mell Lumber Co., Philadelphia, Pa.  
New England Box Co., New York, N.Y.  
Rathborne, Hair & Ridgway Co., Chicago, Ill.  
Smeed Box Co., Cleveland, Ohio  
Spruce Veneer Package Corp., Puyallup, Wash.

### BOXES AND CRATES, BERRY

Acme Veneer Package Co., Orchard Park, N.Y.  
American Box Board Co., Grand Rapids, Mich.  
Ashtabula Corrugated Box Co., Ashtabula, Ohio  
Berlin Fruit Box Co., Berlin Heights, Ohio  
Cummer-Graham Co., Paris, Tex.  
Frank L. Deane & Son, Sodus, Mich.  
Fibre Berry Box Co., Hammond, La.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Robert Gair Co., Inc., New York, N.Y.  
Gaylord Container Corp., Atlanta, Ga.  
General Box Co., Chicago, Ill.  
F. W. Harrison & Son, Painesville, Ohio  
Imman Mfg. Co., Amsterdam, N.Y.  
Maxwell Brothers, Inc., Chicago, Ill.  
New Albany Box & Basket Co., New Albany, Ind.  
Ohio Boxboard Co., Rittman, Ohio  
Ripley Box & Basket Co., Inc., Ripley, Tenn.  
Roberts-Liggett Co., Metropolis, Ill.  
Rollrim Box Co., Benton Harbor, Mich.  
Spruce Veneer Package Corp., Puyallup, Wash.  
Edwin C. Tyson, Flora Dale, Pa.  
Webster Basket Co., Webster, N.Y.

### BOXES AND CRATES, CORRUGATED, FIBERBOARD, PAPERBOARD

American Box Board Co., Grand Rapids, Mich.  
Ashtabula Corrugated Box Co., Ashtabula, Ohio  
Baltimore Paper Box Co., Baltimore, Md.  
Bird & Son, Inc., E. Walpole, Mass.  
California Container Corp., Emeryville, Calif.  
Container Corp. of America, Chicago, Ill.  
Evansville Container Co., Evansville, Ind.  
Corrugated Container Co., Columbus, Ohio  
Fibreboard Products Inc., San Francisco, Calif.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Robert Gair Co., Inc., New York, N.Y.  
Gaylord Container Corp., Atlanta, Ga.  
Hankins Container Co., Cleveland, Ohio

Hinde & Dauch Paper Co., Sandusky, Ohio  
Marketing Service Corp., Baltimore, Md.  
Ohio Boxboard Co., Rittman, Ohio  
Owens-Illinois Pacific Coast Co., San Francisco, Calif.

Pioneer Paper Stock Co., Chicago, Ill.  
B. G. Pratt Co., New York, N.Y.  
Rollrim Box Co., Benton Harbor, Mich.  
Simplex Paper Corp., Adrian, Mich.  
Fred C. Strype, New York, N.Y.  
Traub Container Corp., Cleveland, Ohio  
Edwin C. Tyson, Flora Dale, Pa.  
Van Vick Paper Co., Duluth, Minn.

**It's Here!**  
IN THE NEW CONSUMER TRAY APPLE CONTAINER APPLES KEEP LONGER, LOOK BETTER, SELL FOR MORE.  
Cash in now, along with the thousands of growers who are marketing their apples in the consumer tray box. Dealers like them—Customers demand them!  
Write for samples and prices  
**FRUIT & PRODUCE PACKING, INC.**  
Indianapolis, Indiana

### BOXES AND CRATES, WOOD

John Bacon Inc., Gasport, N.Y.  
Barden & Robeson Corp., Lockport, N.Y.  
Barden & Robeson Corp., Penn Yan, N.Y.  
California Barrel Co., Ltd., Los Angeles, Calif.  
Chicago Mill & Lumber Co., Chicago, Ill.  
H. A. Du Bois & Sons, Inc., Cobden, Ill.  
Evans Products Co., Detroit, Mich.  
Evansville Container Co., Evansville, Ind.  
General Box Co., Chicago, Ill.  
F. W. Harrison & Son, Painesville, Ohio  
Maxwell Brothers, Inc., Chicago, Ill.  
Mell Lumber Co., Philadelphia, Pa.  
T. R. Miller Mill Co., Inc., Brewton, Ala.  
New Albany Box & Basket Co., New Albany, Ind.  
New England Box Co., New York, N.Y.  
Rathborne, Hair & Ridgway Co., Chicago, Ill.  
Smeed Box Co., Cleveland, Ohio  
Sodus Basket Co., Sodus, N.Y.  
Southern Crate & Veneer Co., Macon, Ga.  
Spruce Veneer Package Corp., Puyallup, Wash.  
Traub Container Corp., Cleveland, Ohio  
Edwin C. Tyson, Flora Dale, Pa.

### CARTONS, CONSUMER

American Box Board Co., Grand Rapids, Mich.  
California Container Corp., Emeryville, Calif.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Robert Gair Co., Inc., New York, N.Y.  
Marketing Service Corp., Baltimore, Md.

### Cushions

Continental Paper Products Co., Denver, Colo.  
F. D. Croce & Co., Inc., New York, N.Y.  
Edgerton Mfg. Co., Plymouth, Ind.  
Arthur A. Erny Co., St. Paul, Minn.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Georgia Cushion & Wrapper Co., Inc., Woodland, Ga.

Hinde & Dauch Paper Co., Sandusky, Ohio  
Rice, Trew & Rice Co., Inc., Biglerville, Pa.  
Simplex Paper Corp., Adrian, Mich.  
Fred C. Strype, New York, N.Y.  
Sutherland Paper Co., Kalamazoo, Mich.  
Edwin C. Tyson, Flora Dale, Pa.

THE STANDARD PAPER LINE  
**PACKAGING**  
Green Stripe Caps—Mini Liners—Ties—Fringes—Cushions—Corrugated Baskets  
**FRUIT & PRODUCE PACKING, INC.**  
Indianapolis, Ind.

### Fringes

Continental Paper Products Co., Denver, Colo.  
F. D. Croce & Co., Inc., New York, N.Y.  
Arthur A. Erny Co., St. Paul, Minn.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Pioneer Paper Stock Co., Chicago, Ill.  
Rice, Trew & Rice Co., Inc., Biglerville, Pa.  
Sutherland Paper Co., Kalamazoo, Mich.

### Labels

Brandau-Craig-Dickerson Co., Nashville, Tenn.  
F. D. Croce & Co., Inc., New York, N.Y.  
Epsen Lithographing Co., Omaha, Neb.  
Gamse Lithographing Co., Inc., Baltimore, Md.  
A. Hoen & Co., Baltimore, Md.  
A. B. Morse Co., St. Joseph, Mich.  
Schmidt-Lithograph Co., San Francisco, Calif.  
United States Printing & Lithograph Co., Cincinnati, Ohio

## Liners

Berryville Basket Co., Inc., Berryville, Va.  
Continental Paper Products Co., Denver, Colo.  
F. D. Croce & Co., Inc., New York, N.Y.  
Frank L. Deane & Son, Benton Harbor, Mich.  
Edgerton Mfg. Co., Plymouth, Ind.  
Arthur A. Erny Co., St. Paul, Minn.  
Evansville Container Co., Evansville, Ind.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
New Albany Box & Basket Co., New Albany, Ind.  
Pioneer Paper Stock Co., Chicago, Ill.  
Rice, Trew & Rice Co., Inc., Biglerville, Pa.  
Simplex Paper Corp., Adrian, Mich.  
Fred C. Strype, New York, N.Y.  
Sutherland Paper Co., Kalamazoo, Mich.  
Edwin C. Tyson, Flora Dale, Pa.

## Pads

John Bacon Inc., Gasport, N.Y.  
California Container Corp., Emeryville, Calif.  
Continental Paper Products Co., Denver, Colo.  
Frank L. Deane & Son, Benton Harbor, Mich.  
Fibreboard Products Inc., San Francisco, Calif.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Hinde & Dauch Paper Co., Sandusky, Ohio  
New Albany Box & Basket Co., New Albany, Ind.  
Fred C. Strype, New York, N.Y.  
Edwin C. Tyson, Flora Dale, Pa.

## Paper, Shredded

John Bacon Inc., Gasport, N.Y.  
Continental Paper Products Co., Denver, Colo.  
F. D. Croce & Co., Inc., New York, N.Y.  
Diamond-T-Waxed Paper Corp., Chicago, Ill.  
E. I. du Pont de Nemours & Co., Inc., "Cellophane" Div., Wilmington, Del.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Miller Chemical & Fertilizer Corp., Baltimore, Md.  
Rice, Trew & Rice Co., Inc., Biglerville, Pa.  
Fred C. Strype, New York, N.Y.  
Sylvania Industrial Corp., New York, N.Y.  
Edwin C. Tyson, Flora Dale, Pa.  
Webster Basket Co., Webster, N.Y.

## Stamping Inks and Pads

Rivet-O Mfg. Co., Orange, Mass.

**MARK YOUR PACKAGES WITH THIS STAMP**  
This stamp has interchangeable type to change the size, grade and brand in one second. It SPEEDS YOUR MARKING 200%. Can be made to meet requirements of every state. Write for prices and folder.  
MASSACHUSETTS  
MIN. SIZE 2 1/4 FANCY  
Mass. Approved-Crate  
**GREENINGS**  
PACKED BY  
**R. D. MARCH**  
Shelburne Falls, Mass.  
**RIVET-O MFG. CO.**  
50 Orchard St., Orange, Mass.

## Stamps, Rubber

W. J. Cooley & Co., Memphis, Tenn.  
Jas. H. Matthews & Co., Pittsburgh, Pa.  
J. L. May Co., New York, N.Y.  
Rivet-O Mfg. Co., Orange, Mass.  
Taylor Bros. Co., Cleveland, Ohio

## Wrappers

### METAL FOIL

Belmont Smelting & Refining Works, Inc., Brooklyn, N.Y.  
Reynolds Metals Co., Inc., New York, N.Y.

### OILED

F. D. Croce & Co., Inc., New York, N.Y.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Pioneer Paper Stock Co., Chicago, Ill.  
Fred C. Strype, New York, N.Y.

### PLAIN

F. D. Croce & Co., Inc., New York, N.Y.  
Fruit & Produce Packing, Inc., Indianapolis, Ind.  
Edwin C. Tyson, Flora Dale, Pa.  
United Paper Co., Tampa, Fla.  
Wolf River Paper & Fiber Co., Shawano, Wis.

### TRANSPARENT

Brooks Paper Co., St. Louis, Mo.  
E. I. du Pont de Nemours & Co., Inc., "Cellophane" Div., Wilmington, Del.  
Eastman Kodak Co., Rochester, N.Y.  
Fruit Machines Co., Portland, Ore.  
Goodyear Tire & Rubber Co., Akron, Ohio  
Thomas M. Royal & Co., Philadelphia, Pa.  
Fred C. Strype, New York, N.Y.  
Sylvania Industrial Corp., New York, N.Y.

## OPPORTUNITY ADS

Only 15c a Word—CASH WITH ORDER.  
Count each initial and whole number as  
one word. ADDRESS: AMERICAN FRUIT  
GROWER, 1370 Ontario Street, Cleve-  
land, Ohio

### BABY CHICKS

DO YOUR PART—INCREASE YOUR LAYING FLOCK  
with Carney chicks. Barred, Buff, White Rocks, Reds,  
Wyandottes, Orpingtons, \$2.85-100; Pullets \$11.00; Cock-  
erels 1.45; Big English White Leghorns \$8.25-100; Pul-  
lets \$10.00; Cockerels \$3.25; Heavy Mixed \$6.75; Light  
Mixed \$6.45; Seconds \$3.95; Heavy Mixed (no sex  
guarantee) \$4.45. I can make immediate shipment.  
CARNEY HATCHERY, Box 42, Shelbyville, Indiana.

FOR IMMEDIATE DELIVERY—ENGLISH WHITE,  
Brown, Buff Leghorns, Anconas \$7.95-100; Pullets \$14.95;  
Cockerels \$3.95; Barred, White, Buff Rocks, Reds, White  
Wyandottes, Buff Orpingtons \$7.95-100; Pullets \$9.95;  
Cockerels \$7.95; Heavy Mixed \$6.95; Light Mixed \$6.75;  
Seconds \$3.75. Write for catalog and poult prices.  
DAVIS POULTRY FARM, Route 3, Ramsey, Ind.

HELM'S CHICKS. WORLD'S RECORDS. GOVERN-  
ment approved. Bloodtested. Rocks, Reds, Leghorns.  
\$3.95 postpaid. ILLINOIS HATCHERY, Metropolis,  
Illinois.

### BASKET TURNERS

COWL BASKET TURNER GIVES AN EVEN FACE,  
eliminates lifting. Turns 2000 per day, also works in  
roller conveyor. Price \$15.00 east of Mississippi river de-  
livered. FRUIT PACKING EQUIPMENT CO., Swoope,  
Virginia.

### FARMS WANTED

WANTED TO HEAR FROM OWNER OF FARM OR  
unimproved land for sale. WM. HAALEY, Baldwin,  
Wisconsin.

### FOR SALE

90 ACRES CHERT LOAM SET TO 2100 APPLE TREES,  
some equipment. Immediate possession. \$2500. Terms.  
ROBERT T. BAKER, Keyser, West Virginia.

Forty acres, over four hundred trees. RAY ERBAR,  
Terre Haute, Missouri.

400 ACRE ORCHARD ON LOOKOUT MOUNTAIN  
eighty miles north of Birmingham, Ala. 15,000 peach and  
2500 apple trees, \$50,000. 213 acres near Summerville,  
Georgia, 10,000 peach trees, 2300 apple, \$40,000. 430  
acres near Adairville, Georgia, 15,500 peach trees,  
\$35,000. Each unit fully equipped and good manager.  
Will sell separately or as a whole. Orchards in first class  
condition. They produce mountain fruits that are famous  
for color and flavor. For further details write ORCHARDS,  
P.O. Box 175, Clearwater, Florida.

### FOR SALE—CIDER MILL

FOR SALE: FARQUHAR AND MT. GILEAD CIDER  
Presses, all sizes, new and rebuilt. Supplies. W. G.  
RUNKLES MACHINERY COMPANY, 185 Oakland St.,  
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### HOSIERY

BEAUTIFUL "EVERWEAR" HOSIERY—35c, 3 PAIRS  
\$1.00. 2 Full fashioned \$1.35. "DIREX" AF346W. Broad,  
Savannah, Georgia.

### MISCELLANEOUS

STEER HORNS FOR SALE. SEVEN FOOT SPREAD,  
polished and mounted. Free Photo. LEE BERTILLION,  
Minocia, Texas.

### MONEYMAKING OPPORTUNITIES

MAKE MONEY EASILY, PLEASANTLY WITH ROAD-  
side stand. I show how. Write A. FAME, Lathrop,  
California.

### PATENTS

NATIONAL TRADE MARK COMPANY, MUNSEY  
Building, Washington, D. C.

### RARE OPPORTUNITY

DUE TO THE PHYSICAL CONDITION OF THE OWN-  
er, one of the NICEST and BEST PAYING Commercial  
Orchards in the Famous Hancock, Maryland, sec-  
tion is being offered for sale. It contains 58 acres or  
about 33000 bearing Apple Trees, 90% of which are  
such Well Known Desirable Varieties as GOLDEN DE-  
LICIOUS, STAYMAN WINESAP, YORK IMPERIAL,  
VIRGINIA WINESAP and about 10% Black Twigs,  
Starks, Grimes Golden, and Transparent. There are  
also about 1000 young trees just coming in, which are  
principally Double Red Starks. It also contains  
58 acres of about 5500 bearing Peach Trees, 90% of  
which are Late Elberta and a few HALE, balance Belle  
of Georgia, and about 2000 young Peach principally  
Late Elberta, few Hale, Belle of Georgia and Hale  
Haven. The property is improved with a large Dwelling  
House, Tenant House, Barn, Packing Shed, 2 Implement  
Sheds, Plenty of good water and 2 extra large 135 bar-  
rel Tanks for Spraying purposes in the orchards. The  
place is Fully Equipped, including 2-23 Caterpillar Trac-  
tors and 300 gal. Take Off Spray Rigs. Complete  
Inventory of Equipment is about \$5,000.00. It is located  
about 1 1/2 miles East of Hancock on a High Plateau,  
lying 9/10 of a mile along a macadam road and is  
only 2 miles from loading station. This property has  
been kept in a HIGH STATE OF CULTIVATION and is  
in EXCELLENT CONDITION, all Trimming and  
Spraying being 100% up to schedule. Last year this  
place NET approximately 25% of the asking price  
and the previous 5 years average was approximately a  
little better than 15%, and yet for the ORCHARD and  
listed EQUIPMENT (Packing supplies not included)  
it can be bought at the ridiculous low price of \$20,000.00  
if sold shortly. Both Apples and Peaches have bloomed  
and set for this year's crop. Peaches look 100%. Apples  
70%. With as favorable conditions as last year, with  
over half of production expense paid so far, it is reason-  
able to expect that this year's crop will net \$8,000.00 to  
\$10,000.00. Orchards with only good varieties, properly  
located and cared for have practically always made  
money, therefore we say it is a RARE OPPORTUNITY  
for any party wishing to own a nice place or as a profit-  
able investment, or an ideal place for a son you wish  
to start. If interested in looking the proposition over,  
wire, phone or write for an appointment. ORCHARD:  
315 W. Franklin St., Hagerstown, Maryland. Phone  
74.

## ORCHARD AND HOME SUPPLIES AT NEARBY FIRESTONE DEALERS AND FIRESTONE STORES

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Bathroom scales . . . Brooms  
. . . Carpet Sweepers . . .  
Cleaning materials . . . Clocks,  
electric . . . Clothes dryers . . .  
Coffee makers . . . Door chimes  
. . . Door mats . . . Dry clean-  
er . . . Electrical supplies . . .  
Flashlights, batteries and bulbs  
. . . Floor and furniture waxes  
and polishes . . . Grills . . .  
Ironing boards, pads and cov-  
ers . . . Irons, electric . . .  
Light bulbs . . . Mixers, elec-  
tric . . . Mops . . . Paints, in-  
terior and exterior . . . Paint-  
ing accessories . . . Phono-  
graph record sets . . . Radios  
and phono-records . . . Radio  
accessories . . . Ranges, gas  
and electric . . . Shavers, elec-  
tric . . . Stepladders . . .

Toasters . . . Tools, household  
. . . Vacuum cleaners . . . Waf-  
fle bakers . . . Washing Ma-  
chines.

### FARM AND GARDEN SUPPLIES

Barn paint . . . Farm tools . . .  
Fertilizer . . . Garden hose,  
sprinklers and fittings . . . Gar-  
den tools . . . Lawn, flower and  
vegetable seeds . . . Lawn  
mowers . . . Overalls . . .  
Work clothes . . . Work gloves.

### AUTO SUPPLIES

Batteries . . . Brake lining . . .  
Cleaning materials . . . Cush-  
ions . . . Driving gloves . . .  
Driving lights . . . Fan belts  
. . . Grille guards . . . Horns  
. . . Oil filter cartridges . . .

Radios . . . Radiator hose . . .  
Seat covers . . . Spark plugs  
. . . Steering wheel knobs . . .  
Sun glasses . . . Tires and tubes  
. . . Tire repair materials . . .  
Tools . . . White sidewall wheel  
discs . . . Wig-wag stop signals  
. . . Windshield wiper blades.

### RECREATION SUPPLIES

Badminton sets . . . Baseballs,  
bats and gloves . . . Fishing  
tackle . . . Golf supplies . . .  
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jugs . . . Roller skates . . .  
Table tennis sets . . . Tennis  
racquets.

### BICYCLES

and Accessories . . . Scooters  
. . . Velocipedes . . . Wagons.

## FRUIT PROCESSING

Canning—Preserving—Dehydrating—Juice Extracting

### CANNING, PRESERVING

#### Clarifying Agents

American Colloid Co., Chicago, Ill.  
Braun-Knecht-Heimann-Co., San Francisco,  
Calif.  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio  
Johns-Manville, New York, N.Y.  
Scientific Filter Co., New York, N.Y.  
Wyodak Chemical Co., Cleveland, Ohio

#### Cookers, Apple Butter

Brighton Copper Works, Cincinnati, Ohio  
Bucyrus Copper Kettle Works Co., Bucyrus,  
Ohio  
A. B. Farquhar Co., Ltd., York, Pa.  
Arthur Harris & Co., Chicago, Ill.  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio

#### Corers

Boutell Mfg. Co., Rochester, N.Y.  
Burns Mfg. Co., Syracuse, N.Y.  
Food Machinery Co., (Sprague-Sells Div.)  
Hoopeston, Ill.  
F. B. Pease Co., Rochester, N.Y.  
Rollman Mfg. Co., Mt. Joy, Pa.  
Urschel & Sons Laboratories, Valparaiso, Ind.  
Zastrow Machine Co., Baltimore, Md.

#### Pectin

California Fruit Growers Exchange, Products  
Dept., Ontario, Calif.  
General Foods Sales Co., New York, N.Y.  
Pen-Jel Corp., Kansas City, Mo.  
Skinner Mfg. Co., Omaha, Nebr.

#### Peelers

Josiah Antice & Co., Inc., Rochester, N.Y.  
Boutell Mfg. Co., Rochester, N.Y.  
Burns Mfg. Co., Syracuse, N.Y.  
Food Machinery Corp., (Sprague-Sells Div.)  
Hoopeston, Ill.  
Hobart Mfg. Co., Troy, Ohio  
Sanitary Food Processing Co., Seattle, Wash.

#### Pomace Pickers

A. B. Farquhar Co., Ltd., York, Pa.  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio

#### Pulpers

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.  
A. B. Farquhar Co., Ltd., York, Pa.  
Food Machinery Corp., Anderson-Barngrover  
Div., San Jose, Calif.

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crates, bean and pea hampers, etc. in unlimited quan-  
tities. ZEIDMAN COMPANY, 2663 East 32 Street,  
Cleveland, Ohio.

F. H. Langsenkamp Co., Indianapolis, Ind.  
Queen City Engineering Co., Buffalo, N.Y.

### Sealers

Food Machinery Corp., Anderson-Barngrover  
Div., San Jose, Calif.  
National Can Co., Inc., New York, N.Y.  
National Pressure Cooker Co., Eau Claire, Wis.

### Seeders, Fresh Fruit

Elliott Mfg. Co., Fresno, Calif.

### Slicers

Josiah Antice & Co., Rochester, N.Y.  
Boutell Mfg. Co., Rochester, N.Y.  
Enterprise Mfg. Co., Philadelphia, Pa.  
Food Machinery Corp., Anderson-Barngrover,  
Div., San Jose, Calif.  
Kelleff Mfg. Co., Los Angeles, Calif.  
F. B. Pease Co., Rochester, N.Y.  
Rollman Mfg. Co., Mt. Joy, Pa.  
Urschel & Sons Laboratories, Inc., Valparaiso,  
Ind.  
Zastrow Machine Co., Baltimore, Md.

### Stoners, Cherry

Atlas Tool & Machine Co., Boston, Mass.  
Dunkley Co., Kalamazoo, Mich.  
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.  
Hutley Mfg. Co., Brocton, N.Y.  
New Standard Corp., Mt. Joy, Pa.  
Rollman Mfg. Co., Mt. Joy, Pa.

### Stoners, Peach

Barr Bros. Co., Oakland, Calif.  
Dunkley Co., Kalamazoo, Mich.  
Rollman Mfg. Co., Mt. Joy, Pa.  
L. K. Vaughan, Woodland, Calif.

### Sulphur Dioxide

Braun-Knecht-Heimann-Co., San Francisco,  
Calif.  
E. I. du Pont de Nemours & Co., Inc., Gras-  
sell Chemicals Dept., Wilmington, Del.  
Virginia Smelting Co., West Norfolk, Va.

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## FRUIT PROCESSING

### DEHYDRATING Bleaching Materials

National Sulphur Co., Inc., New York, N.Y.  
Stauffer Chemical Co., New York, N.Y.  
Virginia Smelting Co., West Norfolk, Va.

### Dehydrators

E. H. Guthrie & Co., Santa Ana, Calif.  
L. N. Miller Dehydrating Co., Eugene, Ore.  
Moore Dry Kiln Co., No. Portland, Ore.  
Procter & Schwartz, Inc., Philadelphia, Pa.

### Evaporators

Buffalo Foundry & Machine Co., Buffalo, N.Y.  
Devine Mfg. Co., Mount Vernon, Ill.  
Stokes Machine Co., Philadelphia, Pa.  
Pfaudler Co., Rochester, N.Y.

## JUICE EXTRACTING

### Caps and Closures

Armstrong Cork Co., Lancaster, Pa.  
Ball Bros. Co., Muncie, Ind.  
Crown Cork & Seal Co., Baltimore, Md.  
Cupples Co., St. Louis, Mo.  
Hazel-Atlas Glass Co., Wheeling, W. Va.  
Kerr Glass Mfg. Corp., Sand Springs, Okla.  
Owens-Illinois Glass Co., Toledo, Ohio  
Phoenix Metal Cap Co., Chicago, Ill.

### Extractors, Juice

American Utensil Co., Chicago, Ill.  
Burns Mfg. Co., Syracuse, N.Y.  
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.  
L. O. Koven & Bro., Inc., Jersey City, N.J.  
F. H. Langenkamp Co., Indianapolis, Ind.  
New Standard Corp., Mt. Joy, Pa.

### Filters, Fruit Juice

Cuno Engineering Co., Meriden, Conn.  
Dealite Co., New York, N.Y.  
Food Machinery Corp., Anderson-Barngrover  
Div., San Jose, Calif.  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio  
Johns-Manville, New York, N.Y.  
Oliver United Filters, Inc., New York, N.Y.  
Palmer Bros., Cos Cob, Conn.  
Republic Filters, Inc., New York, N.Y.  
Scientific Filter Co., New York, N.Y.  
Seattle Tent & Awning Co., Seattle, Wash.

### Graters

A. B. Farquhar Co., Ltd., York, Pa.  
Hamilton Metal Products Co., Hamilton, Ohio  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio  
New Jersey Agricultural Works, Trenton, N.J.  
Palmer Bros., Cos Cob, Conn.  
Thomas-Albright Co., Goshen, Ind.

### Grinders

A. B. Farquhar Co., Ltd., York, Pa.  
Food Machinery Corp., Anderson-Barngrover  
Div., San Jose, Calif.  
Hocking Valley Mfg. Co., Lancaster, Ohio  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio  
New Jersey Agricultural Works, Trenton, N.J.  
Palmer Bros., Cos Cob, Conn.  
Papec Machine Co., Shortsville, N.Y.  
J. E. Sedberry, Inc., Utica, N.Y.  
Thomas-Albright Co., Goshen, Ind.

### Pasteurizing Outfits

Food Machinery Corp., Anderson-Barngrover  
Div., San Jose, Calif.  
Glasco Products, Inc., Cleveland, Ohio  
Pfaudler Co., Rochester, N.Y.

### Presses, Fruit

Cutaway Harrow Co., Higganum, Conn.  
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.  
A. B. Farquhar Co., Ltd., York, Pa.  
Food Machinery Corp., Anderson-Barngrover  
Div., San Jose, Calif.  
Hertler & Zook Co., Belleville, Pa.  
Hocking Valley Mfg. Co., Lancaster, Ohio  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio  
New Jersey Agricultural Works, Trenton, N.J.  
Palmer Bros., Cos Cob, Conn.  
Thomas-Albright Co., Goshen, Ind.  
Edwin C. Tyson, Flora Dale, Pa.

### Racks and Strainers, Fruit Juice

A. B. Farquhar Co., Ltd., York, Pa.  
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio  
New Jersey Agricultural Works, Trenton, N.J.  
Palmer Bros., Cos Cob, Conn.  
Thomas-Albright Co., Goshen, Ind.

### Sodium Benzoate

Carus Chemical Co., Inc., La Salle, Ill.  
Dow Chemical Co., Midland, Mich.  
Hayden Chemical Corp., New York, N.Y.  
Hooker Electro Chem. Co., Niagara Falls, N.Y.  
Mallinckrodt Chemical Works, St. Louis, Mo.  
Monsanto Chemical Co., St. Louis, Mo.  
Seydel Chemical Co., Jersey City, N.J.

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